April 20, 2021

White River National Forest
900 Grand Ave.
Glenwood Springs, CO 81601

Submitted via https://cara.ecosystem-management.org/Public//CommentInput?Project=59419

Re: White River Aspen Management Project #59419

To Whom it May Concern:

Thank you for the opportunity to comment on the Forest Service's Notice of Proposed Action for the White River Aspen Management Project. We appreciate that the Forest Service is considering ways to improve resiliency of aspen forests and wildlife habitat on the White River National Forest. Abundant and healthy aspen stands are one of the most beloved characteristics of the White River National Forest, and our members and supporters enjoy hiking, camping, wildlife viewing, scenic touring and otherwise experiencing aspen forests on our local public lands.

We are concerned that the Forest Service does not have adequate science-based information to propose or implement this project in a way that would meet the stated purpose and need. Our understanding is that the White River National Forest does not have an inventory of aspen condition, and so the Forest Service has no baseline for determining that vegetation management activities are needed. Additionally, scientific data is lacking to model future conditions on the forest or establish desired conditions to manage toward. In short, the Notice of Proposed Action fails to provide a compelling rationale for moving forward with this project.

We further question the timing of moving forward with a project of this scale, implicating 375,000 acres of aspen forest over a span of an indefinite number of decades. The Biden-Harris administration has made clear its intention to reverse course on policies of the previous administration that ignored climate science, devalued public land conservation, short-circuited environmental review and minimized public participation in decision-making processes. Proceeding with this project under the policies of the last administration does not seem prudent or in the best interest of the public and our shared natural resources.

We urge the Forest Service to abandon this project unless or until the agency produces scientific data demonstrating the need for this project and the ability to implement it successfully; full public participation is restored to agency decision-making processes; and the Forest Service has policies in place to ensure climate change, land and wildlife conservation, and landscape resiliency are prioritized in forest management plans and projects.

I. The Forest Service must comply with NEPA in evaluating and approving this project.

The environmental analysis process the Forest Service has set forth for evaluating and approving this project does not comply with the National Environmental Policy Act (NEPA). NEPA requires the Forest Service to produce site-specific analyses prior to implementing decisions. Here, the Forest Service intends to employ "condition-based" management, meaning the agency will not plan specific activities until *after* the decision is made, and after any chance for public accountability. The Notice of Proposed Action (NOPA) confirms that the agency will not identify specific sites for vegetation management activities until after the NEPA process is complete.[1] This approach makes it impossible for the NEPA document to disclose site-specific impacts, subverting NEPA's command that agencies look before they leap.

The Forest Service cannot complete NEPA analysis for condition-based management, as proposed here, without also completing stepped-down NEPA analyses for activities that will be implemented in which the Forest Service identifies specific locations and timelines for those activities. The Forest Service has two options for moving forward with this project in compliance with NEPA: 1) The Forest Service can prepare a project-level Environmental Impact Statement (EIS) that includes site-specific decisions and a specific timeline; or 2) the Forest Service can prepare a programmatic "condition-based" EIS and then tier future site-specific NEPA to it.

A. NEPA requires the Forest Service to produce spatially and temporally specific analyses for project-level decisions.

As described in the NOPA, the White River Aspen Management Project is a project-level analysis. The NOPA does not contemplate additional NEPA analysis once analysis of the project is complete. Thus, any NEPA analysis completed for the project will be site-specific, not programmatic. As a result, any NEPA document prepared for the project must include the detailed information and analysis that NEPA and the Council on Environmental Quality (CEQ) regulations require because there will not be any further NEPA analysis after this large, landscape-scale analysis.

In enacting NEPA, Congress recognized the "profound impact" of human activities, including "resource exploitation," on the environment and declared a national policy "to create and maintain conditions under which man and nature can exist in productive harmony."[2] The statute has two fundamental goals: "(1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience."[3] "NEPA promotes its sweeping commitment to 'prevent or eliminate damage to the environment and biosphere' by focusing Government and

[1] NOPA at 17 ("Following a decision to implement the proposed action, Forest Service resource specialists would evaluate landscapes and sites to identify areas to conduct management activities.").
[2] 42 U.S.C. § 4331(a).
[3] *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)); *see also Earth Island v. United States Forest Serv.*, 351 F.3d 1291, 1300 (9th Cir. 2003) ("NEPA requires that a federal agency 'consider every significant aspect of the environmental impact of a proposed action ... [and] inform the public that it has indeed considered environmental concerns in its decision-making process.'").

public attention on the environmental effects of proposed agency action."[4] Stated more directly, NEPA's "'action-forcing' procedures . . . require the [Forest Service] to take a 'hard look' at environmental consequences"[5] *before* the agency approves an action. "By so focusing agency attention, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct."[6] To ensure that the agency has taken the required "hard look," courts hold that the agency must utilize "public comment and the best available scientific information."[7]

In *Natural Resources Defense Council v. U.S. Forest Service*, for example, the Court faulted the Forest Service for providing empty disclosures that lacked any analysis, explaining the agency "d[id] not disclose the effect" of continued logging on the Tongass National Forest and "d[id] not give detail on whether or how to lessen the cumulative impact" of the logging.[8] The Court explained that "general statements about possible effects and some risk do not constitute a hard look, absent a justification regarding why more definitive information could not be provided."[9] The court reasoned that the Forest Service also must provide the public "'the underlying environmental data' from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions."[10] In the end, "vague and conclusory statements, without any supporting data, do not constitute a 'hard look' at the environmental consequences of the action as required by NEPA."[11] "The agency must explain the conclusions it has drawn from its chosen methodology, and the reasons it considered the underlying evidence to be reliable."[12]

At the project level, as compared to a programmatic decision, the required level of analysis is far more stringent.[13] At the "implementation stage," the NEPA review is more tailored and detailed because the Forest Service is confronting "individual site specific projects."[14] Indeed, the federal courts have faulted the Forest Service for failing to provide site-specific information in a landscape level analysis:

> This paltry information does not allow the public to determine where the range for moose is located, whether the areas open to snowmobile use will affect that range, or whether the Forest Service considered alternatives that would avoid adverse impacts on moose and other big game wildlife. In other words, the EIS does not provide the information necessary to determine how specific land should be

[4] *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371 (1989) (quoting 42 U.S.C. § 4321).
[5] *Metcalf v. Daley*, 214 F.3d 1135, 1141 (9th Cir. 2000) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989)).
[6] *Marsh*, 490 U.S. at 371 (citation omitted).
[7] *Biodiversity Cons. Alliance v. Jiron*, 762 F.3d 1036, 1086 (10th Cir. 2014) (internal citation omitted).
[8] *Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 812 (9th Cir. 2005).
[9] *Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1134 (9th Cir. 2007) (citation omitted); *see also Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007) (holding the Forest Service's failure to discuss the importance of maintaining a biological corridor violated NEPA, explaining that "[m]erely disclosing the existence of a biological corridor is inadequate" and that the agency must "meaningfully substantiate [its] finding").
[10] *WildEarth Guardians v. Mont. Snowmobile Ass'n*, 790 F.3d 920, 925 (9th Cir. 2015).
[11] *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 973 (9th Cir. 2006).
[12] *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1075 (9th Cir. 2011) (citation and internal quotation marks omitted).
[13] *See, e.g., Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 800-01 (9th Cir. 2003).
[14] *Forest Ecology Ctr., Inc. v. U.S. Forest Serv.*, 192 F.3d 922, 923 n.2 (9th Cir. 1999).

> allocated to protect particular habitat important to the moose and other big game wildlife. Because the Forest Service did not make the relevant information available . . . the public was limited to two-dimensional advocacy—interested persons could argue only for the allocation of more or less land for snowmobile use, but not for the protection of particular areas. As a result, the Forest Service effectively stymied the public's ability to challenge agency action.[15]

When the Forest Service fails to conduct that site-specific analysis, the agency "does not allow the public to 'play a role in both the decision-making process and the implementation of that decision.'"[16] "Although the agency does have discretion to define the scope of its actions, . . . such discretion does not allow the agency to determine the specificity required by NEPA." *City of Tenakee Springs v. Block*, 778 F.2d 1402, 1407 (citing *California v. Block*, 690 F.2d 753, 765 (9th Cir. 1982)). In *State of Cal. v. Block*, for example, the decision concerned 62 million acres of National Forest land, and the Ninth Circuit still required an analysis of "[t]he site-specific impact of this decisive allocative decision."[17] In short, NEPA's procedural safeguards are designed to guarantee that the public receives accurate *site-specific* information regarding the impacts of an agency's project-level decision *before* the agency approves the decision.

Analyzing and disclosing site-specific impacts is critical because where (and when and how) activities occur on a landscape strongly determines that nature of the impact. As the Tenth Circuit Court of Appeals has explained, the actual "location of development greatly influences the likelihood and extent of habitat preservation. Disturbances on the same total surface area may produce wildly different impacts on plants and wildlife depending on the amount of contiguous habitat between them."[18] The Court used the example of "building a dirt road along the edge of an ecosystem" and "building a four-lane highway straight down the middle" to explain how those activities may have similar types of impacts, but the extent of those impacts – in particular on habitat disturbance – is different.[19] Indeed, "location, not merely total surface disturbance, affects habitat fragmentation,"[20] and therefore location data is critical to the site-specific analysis NEPA requires. Merely disclosing the existence of particular geographic or biological features is inadequate—agencies must discuss their importance and substantiate their findings as to the impacts.[21]

Courts in the Ninth Circuit have taken a similar approach. For example, the U.S. District Court for the District of Alaska in 2019 issued a preliminary injunction in the case *Southeast Alaska Conservation Council v. U.S. Forest Service,* halting implementation of the Tongass National Forest's Prince of Wales Landscape Level Analysis Project.[22] The court did so because the Forest Service's condition-based management approach, which failed to disclose the site-specific impacts of that logging proposal, raised "serious questions" about whether that approach violated the National Environmental Policy Act (NEPA).

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[15] *WildEarth Guardians v. Montana Snowmobile Ass'n*, 790 F.3d 920, 927 (9th Cir. 2015).
[16] *Id*. at 928 (quoting Methow Valley Citizens Council, 490 U.S. at 349).
[17] *California v. Block*, 690 F.2d 753, 763 (9th Cir. 1982).
[18] *New Mexico ex rel. Richardson*, 565 F.3d at 706.
[19] *Id*. at 707.
[20] *Id*.
[21] *Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007).
[22] *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, 413 F. Supp. 3d 973, (D. Ak. 2019).

The district court explained the approach the Forest Service took in the Prince of Wales EIS:

> each alternative considered in the EIS "describe[d] the conditions being targeted for treatments and what conditions cannot be exceeded in an area, or place[d] limits on the intensity of specific activities such as timber harvest." But the EIS provides that "site-specific locations and methods will be determined during implementation based on defined conditions in the alternative selected in the . . . ROD . . . in conjunction with the . . . Implementation Plan . . . ." The Forest Service has termed this approach "condition-based analysis."[23]

The Prince of Wales EIS made assumptions "in order to consider the 'maximum effects' of the Project."[24] It also identified larger areas within which smaller areas of logging would later be identified, and approved the construction of 164 miles of road, but "did not identify the specific sites where the harvest or road construction would occur."[25]

The Court found the Forest Service's approach contradicted federal appellate court precedent, including *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir. 1995). In that case, the appellate court set aside the Forest Service's decision to authorize pre-roading in a watershed without specifically evaluating where and when on approximately 750,000 acres it intended to authorize logging to occur. The district court evaluating the Prince of Wales project found the Forest Service's approach was equivalent to the deficient analysis set aside in *City of Tenakee Springs.*

> Plaintiffs argue that the Project EIS is similarly deficient and that by engaging in condition-based analysis, the Forest Service impermissibly limited the specificity of its environmental review. The EIS identified which areas within the roughly 1.8-million-acre project area could potentially be harvested over the Project's 15-year period, but expressly left site-specific determinations for the future. For example, the selected alternative allows 23,269 acres of old-growth harvest, but does not specify where this will be located within the 48,140 acres of old growth identified as suitable for harvest in the project area. Similar to the EIS found inadequate in *City of Tenakee Springs*, the EIS here does not include a determination of when and where the 23,269 acres of old-growth harvest will occur. As a result, the EIS also does not provide specific information about the amount and location of actual road construction under each alternative, stating instead that "[t]he total road miles needed will be determined by the specific harvest units offered and the needed transportation network."[26]

The district court concluded that plaintiffs in the case raised "serious questions" about whether the Prince of Wales EIS condition-based management approach violated NEPA because "the Project EIS does not identify individual harvest units; by only identifying broad areas within

[23] *See id.* at 976-77 (citations omitted).
[24] *Id*. at 977.
[25] *Id*.
[26] *Id*. at 982 (citations omitted).

which harvest may occur, it does not fully explain to the public how or where actual timber activities will affect localized habitats."[27]

On March 11, 2020, the Alaska district court issued its merits opinion on the Prince of Wales Project, reaffirming its September 2019 preliminary injunction decision and holding that the Forest Service's condition-based management approach violated NEPA.[28] The court explained that "NEPA requires that environmental analysis be specific enough to ensure informed decision-making and meaningful public participation. The Project EIS's omission of the actual location of proposed timber harvest and road construction within the Project Area falls short of that mandate."[29]

The district court also concluded that the Forest Service's "worst case analysis" was insufficient, explaining "This approach, coupled with the lack of site-specific information in the Project EIS, detracts from a decisionmaker's or public participant's ability to conduct a meaningful comparison of the probable environmental impacts among the various alternatives."[30] Consequently, the court concluded that

> By authorizing an integrated resource management plan but deferring siting decisions to the future with no additional NEPA review, the Project EIS violates NEPA. The Forest Service has not yet taken the requisite hard look at the environmental impact of site-specific timber sales on Prince of Wales over the next 15 years. The Forest Service's plan for condition-based analysis may very well streamline management of the Tongass ... however, it does not comply with the procedural requirements of NEPA, which are binding on the agency. NEPA favors coherent and comprehensive up-front environmental analysis to ensure ... that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.[31]

The implementation plan offered by the Forest Service for the Aspen Management Project appears to be substantially similar to the process offered by the Forest Service in the illegal Prince of Wales timber sale, given that the agency will not identify specific forest stands for cutting or other treatments for the Aspen Management Project until *after* the NEPA process is complete, thus denying the public an opportunity to understand and comment on such treatments prior to the agency approving the action. To comply with the law, consistent with the *Southeast Alaska* decisions, the Forest Service must disclose site-specific impacts for the Aspen Management Project, and seek public comment on those impacts, in a NEPA document before it approves and implements the project.

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[27] *Id*. at 983, 984.
[28] *Southeast Alaska Conservation Council v. United States Forest Serv*., 443 F. Supp. 3d 995 (D. Ak. 2020).
[29] *Id*. at 1009 (citations omitted).
[30] *Id*. at 1013.
[31] *Id*. at 1014-15 (internal citations and quotations omitted). The Forest Service should not interpret the Alaska District's decision to somehow endorse the use of condition-based analyses for environmental assessments. Where the exercise of site-specific discretion is material to a project's environmental consequences, NEPA requires consideration of site-specific proposals and alternatives, regardless of whether the effects are "significant." 42 U.S.C. § 4332(2)(C), (E).

The Forest Service must discloses the site-specific impacts of vegetation management activities, unit by unit, and the specific location of roads, in order to comply with NEPA's requirements that the agency describe the characteristics of the specific treatment and road-building projects (e.g., when, where, how much, what sequence, location and length of roads, etc.) and then analyze the direct, indirect, and cumulative impacts from the action alternatives, as well as necessary mitigation associated with implementing decisions.

B. Condition-based management must comply with NEPA

If the Forest Service decides not to conduct site-specific NEPA analysis at this time, the agency can move forward with a programmatic NEPA analysis which would be similar to the analysis described in the NOPA. However, in that case, the Forest Service must conduct future site-specific NEPA analysis prior to approving or implementing specific management activities. This process could resemble a Programmatic EIS (PEIS) with site-specific Environmental Assessments (EAs) tiered to it. The Forest Service must identify the analysis as programmatic and confirm that future site-specific NEPA analyses will be prepared prior to approving implementation activities, with public review and comment.

Programmatic analysis of aspen management across the White River National Forest could be beneficial for the Forest Service to analyze landscape-level conditions and cumulative impacts, such as climate change and wildfire, and would make for more efficient analysis and decision-making for site-specific projects.

Other elements that must be included in condition-based management approaches include: an inventory of aspen condition across the White River National Forest; clearly stated desired conditions; clearly stated, scientifically-derived conditional treatment options; comprehensive impact analysis of those treatment options; multi-scale monitoring; and stakeholder-driven adaptive management.

C. An EIS is required.

NEPA requires federal agencies to prepare an EIS before undertaking "major Federal actions significantly affecting the quality of the human environment."[32] As the appellate courts have explained, "[i]f the agency determines that its proposed action *may* 'significantly affect' the environment, the agency must prepare a detailed statement on the environmental impact of the proposed action in the form of an EIS."[33] As the Ninth Circuit has stated:

> We have held that an EIS *must* be prepared if 'substantial questions are raised as to whether a project ... *may* cause significant degradation to some human environmental factor.' To trigger this requirement a 'plaintiff need not show that significant effects *will in fact occur*,' [but instead] raising 'substantial questions whether a project may have a significant effect' is sufficient.[34]

[32] 42 U.S.C. § 4332(C).
[33] *Airport Neighbors Alliance v. U.S.*, 90 F.3d 426, 429 (10th Cir. 1996) (citation omitted) (emphasis added).
[34] *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998) (citations omitted) (emphasis original). *See also Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864-65 (9th Cir. 2005) ("To trigger this [EIS] requirement a plaintiff need not show that significlant effects will in fact occur, but raising substantial

If an agency "decides not to prepare an EIS, 'it must put forth a convincing statement of reasons' that explains why the project will impact the environment no more than insignificantly. This account proves crucial to evaluating whether the [agency] took the requisite 'hard look.'"[35] "Significance" under NEPA requires consideration of the action's context and intensity.[36] An agency must analyze the significance of the action in several contexts, including short- and long-term effects within the setting of the proposed action (including site-specific, local impacts).[37] Intensity refers to the severity of the impact and requires consideration of ten identified factors that may generally lead to a significance determination, including: (1) whether the action is likely to be highly controversial; (2) whether the action may set a precedent for future actions with significant effects; (3) whether the effects on the environment are highly uncertain or involve unique or unknown risks; and (4) whether the action may have cumulative significant impacts.[38] With respect to the degree to which the environmental effects are likely to be highly controversial, the word "controversial" refers to situations where "'substantial dispute exists as to the size, nature, or *effect* of the major federal action.'"[39]

The Aspen Management Project is likely to have significant impacts, owing to the scale of the project. The Forest Service is proposing vegetation management activities on 375,000 acres of national forest over the course of decades. The project would authorize harvesting and burning 20,000 acres (more than 30 square miles) of aspen trees per decade, as well as road construction and reconstruction activities. We note that this project will long outlive the White River National Forest Land and Resource Management Plan, adopted in 2002, which was only supposed to guide management of the Forest for 10-15 years.[40] The massive scale of the project alone supports a conclusion of significance.

II. The Forest Service must ensure maximum protection of roadless areas.

We appreciate that the Forest Service would not allow mechanized treatments or construction of temporary roads in Colorado Roadless Areas. NOPA at 18. However, the NOPA allows for broadcast burning in Colorado Roadless Areas which could include "incidental cutting of trees, to prepare fire lines, mitigate hazard trees, or create favorable fuel profiles." *Id.* at 20. These types of activities can have impacts on roadless area characteristics and ecosystem health such as by introducing invasive species, and can lead to unauthorized motorized recreation. This is particularly concerning given that a significant portion of the project area overlaps with Colorado Roadless Areas according to the maps provided in the NOPA.

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questions whether a project may have a significant effect is sufficient." (internal quotations, citations, and alterations omitted)).

[35] *Ocean Advoc.*, 402 F.3d at 864.

[36] 40 C.F.R. § 1508.27 (1978).

[37] *Id.* § 1508.27(a) (1978).

[38] *Id.* § 1508.27(b)(4)-(7) (1978).

[39] *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (quoting *North American Wild Sheep v. U.S. Department of Agriculture*, 681 F.2d 1172, 1182 (9th Cir. 1982)) (emphasis in original). *See also Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (same); *Town of Superior v. U.S. Fish and Wildlife Serv.*, 913 F. Supp. 2d 1087, 1120 (D. Colo. 2012) (same).

[40] *See* White River National Forest Land and Resource Management Plan (2002), Final EIS and Record of Decision at i. *See also* 16 U.S.C. § 1604(f)(5) (Forest Plans shall be revised "at least every fifteen years").

The Forest Service must analyze in detail how the Aspen Management Project will ensure consistency with the Colorado Roadless Rule, which only allows vegetation management activities if "roadless area characteristics will be maintained or improved over the long term." 36 C.F.R. § 294.42(c).

The roadless area characteristics are:

> (1) High quality or undisturbed soil, water, and air;
> (2) Sources of public drinking water;
> (3) Diversity of plant and animal communities;
> (4) Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land;
> (5) Primitive, semi-primitive nonmotorized and semi-primitive motorized classes of dispersed recreation;
> (6) Reference landscapes;
> (7) Natural-appearing landscapes with high scenic quality;
> (8) Traditional cultural properties and sacred sites; and
> (9) Other locally identified unique characteristics.

36 C.F.R. § 294.41.

The Forest Service must put in place additional parameters to ensure maximum protection for roadless areas, such as minimizing and restoring fireline construction and limiting the acreage of roadless areas that may be treated per decade. Roadless areas on the White River National Forest are treasured backcountry recreation areas, quality wildlife habitat and important carbon stores. The Forest Service should not disturb a substantial portion of those areas at one time.

III. The Forest Service must analyze, minimize and mitigate road construction associated with this project.

While it is not stated in the NOPA how many miles of new road will be necessary to implement the Aspen Management Project, it appears highly likely that there will be new road construction.[41] The Forest Service must analyze and disclose the potential impacts of temporary roads prior to project approval.

The White River National Forest Travel Management Plan (TMP) confirms that now is the time to consider these impacts. In discussing the cumulative impacts of timber management activities and vegetation treatment projects, the TMP makes clear that "the effects would be analyzed in the project environmental analysis prior to approval." *See* White River National Forest, Travel Management Plan Final EIS (March 2011), at 114. Constructing new temporary roads for this project was not previously considered by the Forest Service.

[41] *See* NOPA at 22 ("temporary roads could be used to access aspen stands"). Importantly, the White River National Forest Travel Management Plan does not distinguish between temporary and permanent roads when defining and quantifying "new road construction." *See* TMP FEIS, App. A at A-14 (New road construction includes: "Activity that results in the addition of forest or temporary road miles.).

Importantly, too, it is unclear that the impacts of existing non-system roads that would be relied upon to implement this project have ever been fully considered under NEPA. Non-system roads are the same as unauthorized roads and have not been incorporated into the designated travel management system.[42] Since the TMP focused on analyzing impacts of the designated travel management system, it appears that non-system roads in the project area have never been analyzed under NEPA despite the impacts those roads are having on the environment. Further, road ecology has evolved since the 2002 Forest Plan was completed, and the Forest Service must ensure it uses the best available science in analyzing potential impacts on elk and other wildlife. *See, e.g*., McCorquodale 2013; Bennett et al. 2011. The Forest Service should consider new science and potential impacts now.[43]

Prior to approving this project, the Forest Service must disclose and consider the potential impacts of any new road construction associated with the Aspen Management Project, as well as the environmental impacts of any existing non-system roads that will be utilized for implementation. The analysis must disclose route density in the area currently as well as during and after implementation of the project.[44]

The Forest Service must also put clear parameters around the development and use of temporary roads. The only limitations in the NOPA are that "Temporary roads would utilize existing road templates when possible," and "Access to harvest areas utilizing newly constructed temporary roads would be limited to 1 mile of temporary road per 100 acres of harvested forest within a project area," or up to 10 miles per year for an indefinite period. NOPA at 22. This language leaves extraordinary discretion to the Forest Service regarding the location and mileage of temporary roads and makes it impossible for the public to understand the potential impacts of these roads. The agency must identify the potential locations and mileage of those roads in advance for the public to review and comment on.

IV. The Forest Service must analyze climate change impacts associated with this project.

The activities proposed in this project undeniably have climate change impacts associated with them, including soil disruption, removal of vegetation that is currently storing carbon, prescribed burning and implications for resilience and adaptation. It is well established that federal agencies must analyze the climate impacts of proposed actions, and courts have invalidated agency decisions for failure to do so. *See, e.g., Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) ("The cumulative impacts regulation specifically provides that the agency must assess the 'impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or

[42] *See* TMP FEIS, App. A at A-14, A-22 (defining "non-system roads" and "unauthorized roads").
[43] *See, e.g., Wilderness Soc'y & Prairie Falcon Audubon, Inc. v. United States Forest Serv.*, 850 F. Supp. 2d 1144, 1157 & 1162 (D. Idaho 2012) (USFS decision to open non-system routes without taking a hard look at the impacts was arbitrary and capricious).
[44] Note the 2002 LRMP concluded that route densities on the WRNF were affecting elk populations based on a well-known study by L.J. Lyon (1983) that found when road densities neared 1 mile per square mile in optimal elk habitat, potential elk use dropped from 100% to 60%. *See* LRMP at 181 (citing Lyon, J.L. 1983. Road density models describing habitat effectiveness for elk. Journal of Forestry 81(9): 592-595, 613.).

non-Federal) or person undertakes such other actions.'" (emphasis added in opinion) (quoting 40 C.F.R. § 1508.7 (2008)).

It is also well established that disclosing climate impacts and working to reduce climate emissions are key goals of the Biden administration. On the day he was inaugurated, President Biden committed to overturning the prior administration's failure to address, and its outright denial of, the climate emergency.

> It is, therefore, the policy of my Administration to listen to the science; to improve public health and protect our environment; to ensure access to clean air and water; to limit exposure to dangerous chemicals and pesticides; to hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; *to reduce greenhouse gas emissions; to bolster resilience to the impacts of climate change*; to restore and expand our national treasures and monuments; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver on these goals.
>
> To that end, this order directs all executive departments and agencies (agencies) to immediately review and, as appropriate and consistent with applicable law, take action to address the promulgation of Federal regulations and other actions during the last 4 years that conflict with these important national objectives, and *to immediately commence work to confront the climate crisis.*

Executive Order 13,990, 86 Fed. Reg. 7037 (Jan. 20, 2021) at Sec. 1 (emphasis added).

Days later, President Biden further committed to taking swift action to address the climate crisis. Per Executive Order 14,008, he has recognized that "[t]he United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents." Executive Order 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021). Pres. Biden announced that under his administration,

> The Federal Government must drive assessment, disclosure, and mitigation of climate pollution and climate-related risks in every sector of our economy, marshaling the creativity, courage, and capital necessary to make our Nation resilient in the face of this threat. Together, we must combat the climate crisis with bold, progressive action that combines the full capacity of the Federal Government with efforts from every corner of our Nation, every level of government, and every sector of our economy.

Id. at 7622 (Sec. 201).

Addressing the need for the accurate assessment of climate costs, Pres. Biden announced on day one that "[i]t is *essential* that agencies capture the full costs of greenhouse gas emissions as accurately as possible, including by taking global damages into account." Executive Order 13,990, 86 Fed. Reg. at 7040, Sec. 5(a) (emphasis added). He noted that an effective way to

undertake this essential task was to use the social cost of carbon to quantify and disclose the effects of additional climate pollution:

> The "social cost of carbon" (SCC), "social cost of nitrous oxide" (SCN), and "social cost of methane" (SCM) are estimates of the monetized damages associated with incremental increases in greenhouse gas emissions. They are intended to include changes in net agricultural productivity, human health, property damage from increased flood risk, and the value of ecosystem services. An accurate social cost is essential for agencies to accurately determine the social benefits of reducing greenhouse gas emissions when conducting cost-benefit analyses of regulatory *and other actions*.

Id. (emphasis added). The President also re-established Interagency Working Group on the Social Cost of Greenhouse Gases, on which the Secretary of Agriculture will serve. *Id*., Sec. 5(b). The President directed the Working Group to publish interim values for the social cost of carbon by February 19, 2021. *Id*., Sec. 5(b)(ii)(A). The Working Group that month set that price at $51/ton at a 3% discount rate.[45] We note that the U.S. Department of Agriculture, the Forest Service's parent agency, is part of the Interagency Working Group and participated in and endorsed the update to the social cost of carbon.[46]

The White River National Forest has not analyzed the climate impacts of these types of vegetation projects in the 2002 Forest Plan or any subsequent NEPA process, and so that climate analysis must be completed in a NEPA document for this project. We suggest that the Forest Service would be best served by conducting programmatic NEPA analysis on climate change impacts associated with vegetation projects on the White River National Forest. However, unless and until the Forest Service completes programmatic climate analysis, the agency must analyze climate change at the project level.

Climate analysis for vegetation projects such as the Aspen Management Project must include: 1) a full carbon accounting of the project; and 2) an assessment of the project's potential impacts on the adaptive capacity of ecosystems and species.

1) Carbon Accounting

The Forest Service must analyze the carbon impacts associated with vegetation projects in order to meet the agency's climate change analysis requirements, including emissions quantification and sequestration assessments. A full carbon accounting of the proposed activities would allow the Forest Service and the public to understand the climate impacts and tradeoffs associated with these projects and make informed decisions.

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[45] Interagency Working Group on Social Cost of Greenhouse Gases, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990 (Feb. 2021), available at https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf (last viewed Apr. 19, 2021).

[46] *Id*. at cover page, 14.

For example, the Forest Service may conclude that the near-term carbon emissions that would result from prescribed fire and other activities proposed in the Aspen Management Project would be justified by the long-term outcome of improving resiliency on the forest. On the other hand, according to the most current science we are now operating on a 10-year horizon to make significant progress towards climate targets, so it may be the case that even a short-term emissions increase is unacceptable.[47] However, without conducting any climate analysis to understand the implications of this project on carbon stores and climate emissions, the Forest Service is incapable of making an informed decision. The agency also cannot assert that this project would not individually or cumulatively have a significant effect on the human environment without assessing carbon storage impacts or greenhouse gas emissions.

There is a wealth of scientific literature and data-driven tools available to the Forest Service to analyze and manage carbon on the White River National Forest, including to inform climate analysis for vegetation management projects. We highlight the following data sources which would enable the agency to assess the climate implications associated with these implementation decisions:

- Forest Carbon Estimation. The Forest Service's Forest Inventory and Analysis (FIA) program provides a wealth of information related to carbon accounting, sequestration assessments, greenhouse gas emission quantification, modeling and trends.
- Forest Inventory Data Online (FIDO) and EVALIDator. These applications use FIA data to produce carbon estimates for an area of interest and can be filtered based on forest attributes and other variables.
- 2015 Rocky Mountain Region Carbon Assessment. This report specific to R2 is intended to help forest managers and the public understand how much carbon is stored in forest ecosystems, and develop capacity to integrate carbon into planning and decision making.
- U.S. Geological Survey Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005–14. In November 2018, the USGS released new estimates of ecosystem carbon emissions and sequestration on federal lands. This national dataset or a similar one is necessary for cumulative impact analysis, as the agency must analyze climate impacts of a specific project relative to regional and national climate impacts.

Further, because the construction of roads and hauling of timber will almost certainly require the use of equipment that combusts fossil fuels, the Forest Service must account for such impacts in any NEPA document on this project.

2) Adaptation

Two of the stated needs for the Aspen Management Project are to: "Improve the resiliency of aspen forests to disturbance agents," and to "Maintain and increase the spatial occurrence of aspen on the White River National Forest." NOPA at 16. These are admirable objectives; however, it is unclear how the Forest Service has come to the conclusion that this project will meet those needs in the context of climate change.

[47] IPCC Special Report, Global Warming of 1.5°C. Online at https://www.ipcc.ch/sr15/.

The 2002 Forest Plan did not appear to use climate modeling to analyze or adopt forest management decisions, and even if it had, climate science has evolved significantly in recent years. The Forest Service must demonstrate that the proposed action is consistent with modern climate science, both in the context of achieving the stated objectives of restoring ecosystem function over the long term, and in the context of creating conditions that are favorable to climate change adaptation.

Again, we suggest this type of analysis would be better accomplished at a programmatic level. Such an approach would allow the agency to take a holistic look at climate predictions and identify a strategic approach for promoting resiliency across the forest. For example, at the programmatic level, the Forest Service could implement the experimental, adaptive design known as the "portfolio approach." The portfolio approach is a strategy by which land managers utilize a zoning approach to manage risk associated with climate change. The strategy relies upon the risk management principle of minimizing risk by spreading it across a portfolio of strategies, in this case management classes such as:

- Observation Zones: areas that are left to change on their own time to serve as scientific "controls" and to hedge against the unintended consequences of active management elsewhere.
- Restoration Zones: areas that are devoted to forestalling change through the process of ecological restoration.
- Facilitation or Innovation Zones: areas that are devoted to innovative management that anticipates climate change and guides ecological change to prepare for it.

These strategies should be used in conjunction with each other in order to spread the risk among the different strategies and to allow for diverse outcomes to inform rapid learning about management strategies in the future. *See* Belote et al. 2014; Tabor et al. 2014; Aplet and Mckinley 2017. We reiterate this type of approach can only be applied at the programmatic level and not on a project-by-project basis.

Identifying these zones on the White River National Forest would enable the Forest Service to proactively and strategically manage the forest for resiliency and adaptation, would guide implementation activities such as vegetation projects and help the Forest Service prioritize resources, and would help the public understand and have confidence in the agency's reasoning behind projects such as the Aspen Management Project.

Relevant to the White River National Forest's current practice of implementing restoration projects on a case-by-case basis, Aplet and Mckinley 2017 caution:

> Categorizing adaptation strategies into three basic classes not only provides a framework for organizing the burgeoning array of options, it also can help guard against willy-nilly application of strategies that may result in *maladaptation*, or "actions or inaction that may lead to increased risk of adverse climate-related outcomes, increased vulnerability to climate change, or diminished welfare, now or in the future" (Noble et al. 2014).

The authors note that the IPCC highly agreed in its Fifth Assessment Report (AR5), stating: "Poor planning, overemphasizing short-term outcomes, or failing to sufficiently anticipate consequences can result in maladaptation." IPCC 2014.

In the absence of programmatic analysis, the Forest Service must conduct project-level NEPA to ensure decisions are informed by the best available science and not negatively impacting the capacity of ecosystems and species to adapt to a changing climate. We especially recommend that the Forest Service not prioritize projects in roadless areas and other highly valuable wild landscapes without robust climate analysis demonstrating the appropriateness of the project and location and the low risk of maladaptation.

V. The Forest Service must analyze wolf reintroduction.

In describing the factors leading to aspen mortality on the White River National Forest, the NOPA notes that sustained herbivory by elk increased with the extirpation of wolves from Colorado. Gray wolves will be reintroduced to Colorado's western slope with the passage of Ballot Initiative 114 in 2020. Colorado Parks and Wildlife is directed to establish a sustainable population beginning in 2022 or 2023, and so practically the entire Aspen Management Project will be implemented with wolves in the ecosystem. The White River National Forest, with its large wilderness areas (including part of the Flat Tops) and the largest elk herd in the state (the White River herd) are likely prime areas for wolf re-establishment. The Forest Service must analyze the need for the project in the context of wolf reintroduction as well as anticipated impacts of the project on elk, wolves and other resources given this changing condition.

VI. The Forest Service's choice of NEPA regulations does not change its duty to disclose direct, indirect, and cumulative effects.

CEQ adopted new regulations implementing NEPA in July 2020, 85 Fed. Reg. 43304 (July 16, 2020), that "apply to any NEPA process begun after September 14, 2020." 40 C.F.R. § 1506.13 (2020). It is unclear whether the Forest Service intends to apply the 2020 regulations to the White River Aspen project. The regulations do not define what is necessary for a NEPA process to "begin," and the White River NF almost certainly "began" preparing for the NEPA process for this project before September 2020.

We therefore request that the Forest Service disclose in writing to the public as soon as possible whether it intends to utilize the 1978 NEPA regulations or the 2020 regulations for this project. Failure to do so will lead to public confusion about which rule applies and so what comments may be relevant to the Forest Service's review of the project.

A. The Forest Service must disclose direct and indirect effects of the Aspen Management Project under either the 1978 or 2020 regulations.

Under either the 1978 or 2020 NEPA regulations, the Forest Service must disclose the project's direct impacts. The 2020 regs define "effects" that must be disclosed as:

> changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the

> proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives.

40 C.F.R. § 1508.1(g) (2020). This definition tracks the definition of direct and indirect impacts under the familiar 1978 regulations. The Forest Service must disclose effects that are later in time or further removed in distance for this project because the project itself has no end-date and no duration; it could continue forever. As such, the effects of the project will continue for decades.

B. The 2020 NEPA regulations did not eliminate the Forest Service's duty to consider cumulative effects.

Even if the Forest Service determines that it should or must apply the 2020 NEPA regulations, it must still analyze and disclose cumulative effects: the impacts of the proposal together with those of other reasonably foreseeable actions likely to cumulatively impact the environment in the area. While the 1978 NEPA regulations identified three types of impacts – direct, indirect, and cumulative – the revised 2020 regulations eliminate the terms "indirect" and "cumulative," and explicitly repeal the definition of cumulative effects. 40 C.F.R. § 1508.1(g)(3) (2020). However, this attempt to eliminate the mandate that agencies analyze and disclose cumulative impacts contravenes Congressional intent, statutory language, previous CEQ guidance, and federal court decisions interpreting NEPA prior to the adoption of the agency's 1978 regulations that the 2020 regulations purport to repeal. If the Forest Service here fails to address cumulative effects, it does so at considerable legal peril.[48]

Legislative history shows that Congress adopted NEPA in part to address cumulative effects. As it considered taking action that ultimately resulted in NEPA's enactment, the United States Congress hosted a joint House-Senate Colloquium on a "National Policy for the Environment" on July 17, 1968.[49] Invited to participate in the Colloquium were "interested members with executive branch heads and leaders of industrial, commercial, academic, and scientific organizations," with the purpose of "focus[ing] on the evolving task the Congress faces in finding more adequate means to manage the quality of the American environment."[50] The

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[48] The 2020 CEQ regulations have been challenged as illegal in numerous courts, which could vacated them entirely. *See Environmental Justice Health Alliance v. CEQ*, Case 1:20-cv-06143 (S.D.N.Y. Aug. 6, 2020); *Wild Virginia v. CEQ*, Case 3:20-cv-00045-NKM (W.D. Va. July 29, 2020); *Alaska Community Action on Toxics v. CEQ*, Case 3:20-cv-05199-RS (N.D. Ca. July 29, 2020); *State of California v. Council on Environmental Quality*, Case No. 3:20-cv-06057 (N.D. Cal. Aug. 28, 2020). Further, the Biden administration is already considering re-writing the 2020 regulations. As CEQ's attorney told a court last month in seeking to remand the rule to the agency: "CEQ has identified numerous concerns with the 2020 Rule, many of which have been raised by Plaintiffs in this case, and has already begun reconsidering the Rule." E. Gilmer, Biden Officials Rethinking Trump Environmental Review Rule, Bloomberg Law (Mar. 17, 2021), attached as Exhibit 1, and available at https://news.bloomberglaw.com/environment-and-energy/biden-officials-rethinking-trump-environmental-review-rule (last viewed Apr. 19, 2021).

[49] *See* Congressional White Paper on a National Policy for the Environment, U.S. Gov't Printing Office (Oct. 1968), attached as Exhibit 2, and available at https://ceq.doe.gov/docs/laws-regulations/Congress-White-Paper.pdf (last viewed Apr. 19, 2021).

[50] *Id*. at III, 1.

outcome of the day-long discussion was a Congressional White Paper on a National Policy for the Environment, published in October 1968.[51] Noting the near-consensus views expressed by those participating in the Colloquium, the Congressional White Paper explained that "in the recent past, a good deal of public interest in the environment has shifted from its preoccupation with the extraction of natural resources to the more compelling problems of deterioration on natural systems of air, land, and water. The essential policy issue of conflicting demands has become well recognized."[52]

The Congressional White Paper highlighted additional issues that stakeholders agreed were essential and ripe for Congressional consideration in its development of a national environmental policy. For example, Dr. Walter Orr Roberts, an atmospheric physicist and founder of the National Center for Atmospheric Research, explained the importance of considering climate change due to "[s]ubtle alterations of the chemical constitution of the atmosphere, through pollutants added in the form of trace gases, liquids, or solids, result from industrial activity or urbanization. This is an area of biometeorology that has significance in every living person and yet we have not yet seen even the first beginnings of an adequately sustained research effort in this area." [53] Subtle alterations from multiple projects, including the type of projects at issue here, could also have significant impacts when viewed cumulatively.

NEPA's legislative history is replete with additional references to the complexity of environmental impacts, the consequences of "letting them *accumulate* in slow attrition of the environment" and the "ultimate consequences of quiet, creeping environmental decline," all of which Congress concluded required an analysis of proposed impacts beyond the immediate, direct effects of an action.[54] For 50 years, CEQ interpreted the law to accomplish just that.

The text of NEPA itself also indicates that agencies should address cumulative environmental effects. The evaluation of a proposed project must include a "detailed statement" on "the environmental impact of the proposed action," including "*any* adverse environmental effects which cannot be avoided should the proposal be implemented." 42 U.S.C. § 4332(2)(C)(ii) (emphasis added). The evaluation must examine "the environmental impact of the proposed action" "*to the fullest extent possible*." *Id.* §§ 4332 (emphasis added), 4332(2)(C)(i). The evaluating agency must also seek out other agencies' expertise regarding "*any* environmental impact involved." *Id.* § 4332(2)(C) (emphasis added). The statute requires agencies to "recognize the *worldwide* and *long-range character* of environmental problems." *Id.* § 4332(2)(F) (emphasis added).

Further, the statute anticipates that agencies will consider impacts that, like climate pollution and climate change, may accrete from numerous projects with small individual impacts to harm our "biosphere." 42 U.S.C. § 4321 (NEPA's purpose is "to declare a national policy which will

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[51] *Id*.
[52] *Id*. at 1.
[53] *Id*. at 1.
[54] 115 Cong. Rec. 29070 (October 8, 1969) (emphasis added); *see also*, S. Rep. No. 91-296, 91st Cong., 1st Sess. (July 9, 1969) at 5 (bemoaning the fact that "[i]mportant decisions concerning the use and the shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades."), attached as Exhibit 3, and available at https://ceq.doe.gov/docs/laws-regulations/Senate-Report-on-NEPA.pdf (last viewed Apr. 19, 2021).

encourage productive and enjoyable harmony between man and his environment; [and] to promote efforts which will prevent or eliminate damage to the environment and *biosphere* ….” (emphasis added)).

Within a few months of its establishment, CEQ interpreted NEPA to require the disclosure of all environmental impacts, including cumulative effects. “The statutory clause ‘major Federal actions significantly affecting the quality of the human environment’ is to be construed by agencies with a view to *the overall, cumulative impacts of the action* proposed (and of *further actions contemplated*).”[55] CEQ published interim guidance in 1971 that confirmed this mandate.[56] The guidance explained that the requirement in Section 102(2)(C) of NEPA to identify “the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity” in the detailed statement (now known as an EIS) required the agency “to assess the action for cumulative and long-term effects from the perspective that each generation is trustee of the environment for succeeding generations.”[57]

Some of the earliest Federal court decisions, issued years before CEQ adopted its 1978 regulations, concluded that NEPA requires disclosure of cumulative effects. The Second Circuit ruled in 1972:

> In the absence of any Congressional or administrative interpretation of the term, we are persuaded that in deciding whether a major federal action will “significantly” affect the quality of the human environment the agency in charge, although vested with broad discretion, should normally be required to review the proposed action in the light of at least two relevant factors: (1) the extent to which the action will cause adverse environmental effects in excess of those created by existing uses in the area affected by it, and (2) the absolute quantitative adverse environmental effects of the action itself, including *the cumulative harm* that results from its contribution to existing adverse conditions or uses in the affected area.

Hanly v. Kleindienst, 471 F.2d 823, 830-31 (2d Cir. 1972) (emphasis added)). Following *Hanly*, the Second Circuit reiterated the importance of disclosing cumulative impacts.

> As was recognized by Congress at the time of passage of NEPA, a good deal of our present air and water pollution has resulted from the *accumulation of small amounts of pollutants added to the air and water by a great number of individual, unrelated sources*. ‘*Important decisions concerning the use and the shape of man’s future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.*’

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[55] Council on Environmental Quality: Statements on Proposed Federal Actions Affecting the Environment; Interim Guidelines, April 30, 1970, Section 5(b) (filed with Fed. Reg. May 11, 1970), available in *Environmental Quality, The First Annual Report of the Council on Environmental Quality* (1970) at 288, *available at* https://www.slideshare.net/whitehouse/august-1970-environmental-quality-the-first-annual-report-of (last viewed Apr. 19, 2021).

[56] CEQ, *Statements On Proposed Federal Actions Affecting The Environment Guidelines*, 36 Fed. Reg. 7,724 (April 23, 1971), attached as Exhibit 4.

[57] *Id*. at 7,725 (interpreting 42 U.S.C. 4332(2)(C)(iv)).

> S. Rep. No. 91-296, 91 Cong., 1st Sess. 5 (1969). NEPA was, in large measure, an attempt by Congress to instill in the environmental decisionmaking process a more comprehensive approach *so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted* as the price to be paid for the major federal action under consideration.

Natural Resources Defense Council v. Callaway, 524 F.2d 79, 88-89 (2d Cir. 1975) (emphasis added) (citation omitted).

The Ninth Circuit in 1975 further explained:

> while "foreseeing the unforeseeable" is not required, an agency must use its best efforts to find out all that it reasonably can: It must be remembered that the basic thrust of an agency's responsibilities under NEPA is to predict the environmental effects of proposed action before the action is taken and those effects fully known. Reasonable forecasting and speculation is thus implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as "crystal ball inquiry." Nor does characterization of industrial development as a "secondary" impact aid the defendants. As the Council on Environmental Quality only recently pointed out, consideration of secondary impacts may often be more important than consideration of primary impacts.
>
> > Impact statements usually analyze the initial or primary effects of a project, but they very often ignore the secondary or induced effects. A new highway located in a rural area may directly cause increased air pollution as a primary effect. But the highway may also induce residential and industrial growth, which may in turn create substantial pressures on available water supplies, sewage treatment facilities, and so forth. For many projects, these secondary or induced effects may be more significant than the project's primary effects.
> >
> > . . . .
> >
> > While the analysis of secondary effects is often more difficult than defining the first-order physical effects, it is also indispensable. If impact statements are to be useful, they must address the major environmental problems likely to be created by a project. Statements that do not address themselves to these major problems are increasingly likely to be viewed as inadequate. As experience is gained in defining and understanding these secondary effects, new methodologies are likely to develop for forecasting them, and the usefulness of impact statements will increase.

City of Davis v. Coleman, 521 F.2d 661, 676-77 (9th Cir. 1975) (quoting *Scientists' Institute for Public Information v. A.E.C.*, 481 F.2d 1079, 1092 (D.C. Cir. 1973).[58]

The Supreme Court in 1976 endorsed the Second and Ninth Circuits' view that the statute requires disclosure of cumulative effects.

> [W]hen several proposals for coal-related actions that will have *cumulative or synergistic environmental impact upon a region* are pending concurrently before an agency, their environmental consequence must be considered together. Only through *comprehensive* consideration of pending proposals can the agency evaluate different courses of action.

Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976) (emphasis added) (citation omitted).

In sum, CEQ's attempt in its 2020 regulations to eliminate an agency's duty to consider cumulative effects is contrary to legislative intent, statutory language, nearly 50 years of caselaw, and consistent CEQ interpretation. Therefore, the Forest Service must continue to disclose the cumulative effect of federal actions, including when it prepares EAs, ad including for the White River Aspen project.

D. The 2020 regulations did not significantly change the requirements for environmental assessments.

The 2020 regulations do not change the mandate that when preparing an EA, the Forest Service must disclose effects, evaluate alternatives, and consider mitigation measures. 40 C.F.R. § 1501.5 (2020). Agencies must also continue to "ensure the professional integrity, including scientific integrity, of the discussions and analyses in environmental documents," including EAs. 40 C.F.R. § 1502.23 (2020). And while the 2020 regulations purport to place a page limit and a limit on the time that an agency can take to complete an EA, agencies may extend the page- and time-limits if necessary. *See* 40 C.F.R. §§ 1501.5(f) (2020); 1501.10(b)(1) (2020). Therefore, the Forest Service may continue to be guided by prior law and caselaw in preparing its EA even if it intends to use the 2020 CEQ regulations rather than the 1978 regs.

To conclude, we herein reference and join the comments submitted by Rocky Smith et al. (attached as Exhibit 5).

Thank you for considering these comments. We look forward to continuing to participate in this project if and as it moves forward.

[58] *See also* CEQ, Fifth Annual Report of the Council on Environmental Quality, 410-11 (Dec. 1974), available at https://www.slideshare.net/whitehouse/august-1974-the-fifth-annual-report-of-the-council-on-environmental-quality (last viewed Apr. 19, 2021)).

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List of Exhibits:

1. E. Gilmer, Biden Officials Rethinking Trump Environmental Review Rule, Bloomberg Law (Mar. 17, 2021)
2. Congressional White Paper on a National Policy for the Environment, U.S. Gov't Printing Office (Oct. 1968)
3. S. Rep. No. 91-296, 91st Cong., 1st Sess. (July 9, 1969)
4. CEQ, *Statements On Proposed Federal Actions Affecting The Environment Guidelines*, 36 Fed. Reg. 7,724 (April 23, 1971)
5. Scoping comments submitted by Rocky Smith et al., April 6, 2021

EXHIBIT 1

Environment & Energy

Biden Officials Rethinking Trump Environmental Review Rule (1)

By Ellen M. Gilmer

March 17, 2021, 3:30 PM; Updated: March 17, 2021, 4:12 PM

- 2020 NEPA rule aimed to expedite federal permitting
- Council now doing 'comprehensive reconsideration'

The Biden administration has identified "numerous concerns" with a Trump-era environmental review regulation and wants a federal court to remand the rule rather than carry on with litigation.

Government lawyers laid out their position Wednesday in a brief in the U.S. District Court for the Western District of Virginia, marking the Biden administration's first public effort to backtrack from the divisive rule finalized last year by the White House's Council on Environmental Quality.

"CEQ has identified numerous concerns with the 2020 Rule, many of which have been raised by Plaintiffs in this case, and has already begun reconsidering the Rule," Justice Department lawyers told the court. "Where an agency has committed to reconsidering the challenged action, the proper course is remand to allow the agency to address its concerns through the administrative process."

A newly installed political official in CEQ told the court the council has started a "comprehensive reconsideration" of the 2020 rule, looking at impacts on environmental justice and climate change, among other issues.

"CEQ expects to decide in the coming weeks how to address the questions and concerns" about the rule, Matthew Lee-Ashley, CEQ's interim chief of staff and senior direct for lands, said in a declaration to the court, adding that the council would decide "whether to propose to amend or repeal the 2020 Rule, in whole or in part."

The CEQ regulation aimed to speed up and narrow the scope of reviews under the National Environmental Policy Act. Agencies conduct NEPA analyses whenever they adopt rules, issue permits, or take other actions that could significantly affect the environment.

Government lawyers urged the court to remand the rule to the court without vacating it, meaning it would remain in effect until the council takes further action. They argued that leaving the regulation intact for now wouldn't prejudice environmental challengers because "Plaintiffs continue to have the option to challenge individual NEPA processes taken under the 2020 Rule as they arise."

The judge presiding over the case last month refused to freeze the lawsuit from Wild Virginia and other environmental groups opposed to the Trump regulation. Similar lawsuits in other courts are on hold.

The Southern Environmental Law Center, which represents opponents of the Trump-era NEPA rule in the case, didn't immediately respond to a request for comment Wednesday.

ClearView Energy Partners, a research firm, warned that the rule's uncertain status "is likely to pose challenges" for projects under review at the Federal Energy Regulatory Commission and other agencies, with potential delays associated with adjusting environmental analyses that are already underway. But delays could be minor "if the CEQ provides guidance relatively soon," ClearView said in a note to clients.

The case is Wild Virginia v. Council on Envtl. Quality, W.D. Va., No. 3:20-cv-00045, motion filed 3/17/21.

(Updates with additional reporting throughout.)

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To contact the editor responsible for this story: Seth Stern at sstern@bloomberglaw.com

Documents

Docket
District court docket

Document
Government brief

Related Articles

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White House Environmental Review Rule Survives Legal Test (1) — Sept. 11, 2020, 1:43 PM

Judge Considers Freezing 'Political' Environmental Review Rule — Sept. 4, 2020, 10:51 AM

EXHIBIT 2

[COMMITTEE PRINT]

CONGRESSIONAL WHITE PAPER

ON

A NATIONAL POLICY FOR THE ENVIRONMENT

SUBMITTED TO THE

UNITED STATES CONGRESS

UNDER THE AUSPICES OF THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

UNITED STATES SENATE

AND THE

COMMITTEE ON SCIENCE AND ASTRONAUTICS

U.S. HOUSE OF REPRESENTATIVES

NINETIETH CONGRESS

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LETTER OF SUBMITTAL

To the U.S. Congress:

An informal joint House-Senate colloquium on a "National Policy for the Environment" was held July 17, 1968. The objective was to avoid conventional committee jurisdiction limitations and bring together interested members with executive branch heads and leaders of industrial, commercial, academic, and scientific organizations. The proceedings of the colloquium attest to its success in getting down to the practical aspects of policy planning.

The accompanying white paper on national environmental policy is intended to continue and broaden the consideration of this subject by the entire Congress. The genesis of the policy statement is the deep concern of those Members who have joined in adding their signatures below. It was prepared under our direction by Mr. Richard A. Carpenter and Mr. Wallace E. Bowman of the Legislative Reference Service.

Over the years, many legislative committees and individual Members have become aware of the difficulty of reconciling conflicting uses of the environment in the absence of any comprehensive policy guidance.

The Congress is the only institution having the scope to deal with the broad range of man's interactions with his physical-biological surroundings. We therefore believe that leadership toward a national environmental policy is our responsibility.

This white paper serves as the next step toward the needed policy agreement. The elements of policy are presented as they are now understood. Further immediate actions by the Congress are briefly outlined. The overall purpose is to focus consideration on progress rather than continue to elaborate the dimensions of the environmental quality issue.

We believe the Nation accepts the responsibility of stewardship and creative management of the environment. By means of this document we solicit your support, comments, or criticisms so that the combined activities of government, industry, and individuals may proceed toward a wise and operational environmental policy.

Signed Senator HENRY M. JACKSON.
Senator THOMAS H. KUCHEL.
Representative GEORGE P. MILLER.
Representative JOHN A. BLATNIK.
Representative EMILIO Q. DADDARIO.
Representative JAMES G. FULTON.
Representative CHARLES A. MOSHER.

CONTENTS

CONGRESSIONAL WHITE PAPER ON A NATIONAL POLICY FOR THE ENVIRONMENT

PART I. ASPECTS OF ENVIRONMENTAL MANAGEMENT

The colloquium [1] focused on the evolving task the Congress faces in finding more adequate means to manage the quality of the American environment.

In the recent past, a good deal of public interest in the environment has shifted from its preoccupation with the extraction of natural resources to the more compelling problems of deterioration in natural systems of air, land, and water. The essential policy issue of conflicting demands has become well recognized.

Several social attitudes have become the action force in the movement for improved environmental policies and programs. One is the desire for esthetically attractive surroundings. Another is the recognition of the folly of excessive population densities. Still another is the mounting irritation, disgust, and discomfort (aside from actual economic loss) resulting from such anomalies as smoggy air and polluted streams and seashores.

The broad public interest in the natural environment was succinctly defined by a report of the National Academy of Sciences thus:

> We live in a period of social and technological revolution in which man's ability to manipulate the processes of nature for his own economic and social purposes is increasing at a rate which his forebears would find frightening * * * there is a continuing worldwide movement of population to the cities. The patterns of society are being rapidly rearranged, and new sets of aspirations, new evaluations of what constitutes a resource, and new requirements in both types and quantity of resources are resulting. The effects on man himself of the changes he has wrought in the balance of great natural forces * * * are but dimly perceived and not at all well understood. * * * It is evident that the more rapid the tempo of change is becoming, the more sensitive the whole system of resource supply must become in order to cope with the greater rapidity and severity with which inconsistencies, conflicts, and stress from independent innovations will arise. * * * If divergent lines of progress are seen to give rise to ever-greater stresses and strains too fast to be resolved after they have risen and been perceived, then obviously the intelligent and rational thing to do is to learn to anticipate those untoward developments before they arise.[2]

[1] Joint House-Senate Colloquium to Discuss a National Policy for the Environment. Hearings before the Committee on Interior and Insular Affairs, U.S. Senate, and the Committee on Science and Astronautics, U.S. House of Representatives, 90th Cong., 2d sess., July 17, 1968.

[2] NAS-NRC Publications 1000 and 1000A (1962).

The statements of participants in the colloquium itself are evidence that the issues of the human environment are important to a broad segment of society.

> Mr. ROCKEFELLER. * * * there is a strong and deep seated concern among the American people for a better environment. The quality of our surroundings is emerging as a major national social goal (p. 4).[3]
>
> Secretary UDALL. One of the things that I take the most encouragement from is simply the growth of sentiment in the Congress, the number of conservationist Congressmen, the number of organizations, however they define themselves, that are interested in the city problem, that are interested in the total environment problem * * * (p. 62).

The long-term quality of the environment is seen to be dependent on today's decisions. The means of relating the present to the future is not clear, however.

> Secretary UDALL. The real wealth of the country is the environment in the long run. We must reject any approach which inflates the value of today's satisfactions and heavily discounts tomorrow's resources (p. 14).
>
> Mr. ROCKEFELLER. * * * we have not set down in clear terms what our goals are for the long-term future, (p. 5).

If America is to create a carefully designed, healthful, and balanced environment, we must (1) find equitable ways of charging for environmental abuses within the traditional free-market economy; (2) obtain adequate ecological guidance on the character and impact of environmental change; (3) where corporate resource development does not preserve environmental values, then consider the extension of governmental controls in the larger public interest; (4) coordinate the Government agency activities, which share with industry the dominant influence in shaping our environment; and (5) establish judicial procedures so that the individual rights to a productive and high-quality environment can be assured.

These and other aspects of environmental management—discussed at the Colloquium and submitted in the form of letters or reports for inclusion in the record—are briefly highlighted below.

A. Relationships Among Population Growth, Environmental Deterioration, and the Quality of Life

In an exchange of views on this subject, Secretary Robert Weaver (HUD) pointed out that by 1980 there will be almost 240 million and by the year 2000 about 312 million people in the 48 contiguous States and the District of Columbia, if present projects are borne out. Secretary Stewart Udall (DI) argued that a reasonable adjustment between population growth and our finite resources is required for sound environmental management, while Assistant Secretary Philip Lee (DHEW) contended that we do not presently have the kind of information to determine what the ideal population for this country would be. Dr. David Gates submitted the following observations in the worldwide context:

[3] Page nos. in parentheses following quotations refer to the hearing transcript, op. cit.

> It is clear that all segments of the world—all soils, waters, woods, mountains, plains, oceans, and ice-covered continents—will be occupied and used by man. Not a single solitary piece of landscape will go untouched in the future and in fact not be used repeatedly for as long as man survives. Everything between soil and sky will be moved about, redistributed and degraded as man continues to exploit the surface of the planet. * * * The population will grow until it reaches some equilibrium level. * * * An alternate ultimate destiny is for an earth of half-starved, depressed billions gasping for air, depleted of eutropic water, struggling to avoid the constant presence of one another and in essence continuing life at a degraded subsistence level limited in numbers not by conscience but by consequence. A third possibility exists which is to maintain a reasonable quality for life by means of population control, rational management of ecosystems, and constructive exploitation of resources * * * (p. 174).

The issue of high population densities as a source of growing stresses in our society, with profound effects on health and safety, raised a number of comments. Senator Henry Jackson observed that the apparent cause-and-effect relation of congestion and violence should be a consideration in arriving at any decisions concerning what constitutes an optimum population density.

Dr. Paul Weiss submitted the following caveat:

> A stress free environment offering maximum comfort and minimum challenge is not only not optimal but is detrimental. To be exposed to moderate stress is a means of keeping the human faculty for adapting to stress * * * lacking the opportunity for such exercise, man loses that faculty and becomes a potential victim of any unforseen, but inevitable, stressful occurrences. The optimum environment consists of a broad band of conditions bounded by an upper limit far short of the stress limit and by a lower limit considerably above the ideal zone of zero stress. Within those margins of reasonable safety or tolerance, man must navigate his own responsibility (p. 224).

Senator Clifford Hanson suggested that the Federal Government might well consider programs which would provide incentives and opportunities leading to a wider and more balanced dispersal of our people. Assistant Secretary John Baker (USDA) agreed and proposed the creation of new community centers as a matter of national environmental policy. Secretary Weaver commented that any Government policy which has to do with such dispersal must be based on the democratic principle of free choice—including for all of our people the alternatives of living in existing large population centers, suburbia, or new towns.

B. Broadening the Scope of Cost Accounting

Narrow utilitarian views governing the use of environmental resources were cited as the root of many conflicts and a major barrier to sound environmental management.

Dr. DONALD HORNIG. In my view national policy must recognize the very wide array of appropriate and necessary uses of air and water and land. It would recognize, too, the existence of a number of beneficial but noncompatible uses, and make provision for resolving these conflicts. It should result in an environment that is safe, healthful, and attractive and that is economically and biologically productive, yet that provides for sufficient variety to meet the differing requirements and tests of man (p. 31).

Congressman Emilio Q. Daddario questioned whether the industrial objective of immediate profit can be made compatible with long-term environmental management objectives. Congressman Joseph Karth observed that the self-interests of some organizations do not coincide with the public interest. Secretary Wilbur Cohen (DHEW) commented that environmental controls may be costly in the short run, but in the long run they are a bargain both for industry and the public it serves: "What we are really seeking is an enlightened self-interest that industry and commerce have often exhibited."

Dr. Lynton K. Caldwell contended that the social costs of environmental management should not be an undue burden on the business community if all competitors carry it alike:

Scientific knowledge and rising levels of amenity standards have added to public expectation that protection against environmental change will be built into the products and production costs of manufacturers (p. 99).

The point at which compromise among conflicting uses is reached furnishes one test of adequacy of policy.

Mr. ROCKEFELLER. * * *
If you take a black and white approach, you are never going to resolve it. You have a lot of hostility and you don't represent the public constructively (p. 63).

C. The Role of Ecology

Ecologists dedicated to the study of man-environment relationships were urged to show a greater willingness to engage with industry in what was termed "ecological engineering." However, Dr. Dillon Ripley argued that this subject involves a kind of ecological study which is still in the formative stage:

I think it may take a generation perhaps to achieve even the beginnings of the kind of training, the kind of production of original minds and talents that will be able to perform the sorts of—studies—which we stress the urgency of (p. 75).

By contrast, several participants contended that the science of ecology has already established a number of basic principles, or propositions, which could guide the attitudes and actions of both industry and government toward the environment. The following examples are paraphrased from submissions by Dr. Paul Weiss:

(i) Organic nature is such a complex, dynamic, and interacting, balanced and interrelated system that change in one component entails change in the rest of the system. Isolated analytical study of separate components cannot yield desired insight. To find solutions to separate problems of hydrology, waste disposal, soil depletion, pest control, et cetera, is not adequate to achieve the optimization of environmental resources generally. All factors and their cohesive impact on each other need to be simultaneously considered.

(ii) The significance or insignificance of mixtures of components and environmental conditions cannot be judged from sheer data on bulk or averages. This fallacy is a pitfall ignored today by some planners, developers, builders, and other practicing manipulators of the environment. Our tendency to maximize a specific change or result too often sacrifices other interrelated parts without optimizing the total result.

(iii) Similarly, the concept of single, rigid, linear cause-to-effect chains of natural events has given rise to organically unreal and practically untenable conclusions. More attention should be given to the network type of causal relations in an integrated system that establishes a multiplicity of alternative routes to such a goal of optimizing the development of environmental resources.

Commenting on the complexity of the total systems approach, Mr. Don Price stated:

I am left with the vaguely uneasy feeling that if we see the continuous complex here as one set of interconnecting realities that have to be understood as a total system, we may be broadening our interest so much that it's impossible to act on it at all (p. 64).

Dr. HORNIG. It is a great thing to talk about systems analysis, but the trouble with that is that you have to put in some facts. And, if you do the analysis when the facts aren't available, you are in trouble.

* * * it needs a basis in sound research that understands, that gives us clear understanding of what the nature of these long-term liabilities are (p. 51).

D. Redirecting Research Activities

In addition to increased ecological research, the colloquium touched on the need for the entire scientific community to direct a greater share of its total effort to long-term environmental problems. Mr. Laurance Rockefeller argued that we have not yet fully harnessed this Nation's vast technological talent in the effort for a better environment. Dr. Walter Orr Roberts pointed out that cross-disciplinary research on environmental problems offers the utmost challenge from the intellectual standpoint, and also cited the following as an example of neglected research:

Only modest efforts have been made to mount a sustained research program on the medical effects involved in the slowly developing health impairments, like aging, that result from low-level but long-persistent alterations of the atmospheric environment. Subtle alterations of the chemical constitution of the atmosphere, through pollutants added in the form of trace gases, liquids, or solids, result

from industrial activity or urbanization. This is an area of biometeorology that has significance in every living person, and yet we have not yet seen even the first beginnings of an adequately sustained research effort in this area (p. 216).

Future values are difficult to judge, particularly when they include non-economic aspects of environmental quality. Social science research and ecology were singled out for increased support.

> Dr. HORNIG. One of the central problems in weighing the future against the present is that we don't know about the future. The reason we can't muster political forces and the reason we can't make decisions is that for the most part the information is not there (p. 51).

The establishment of criteria for judgment is a primary task of environment management.

> Secretary WEAVER. There are too many things we do not know, basic matters such as how we define quality in the urban environment, how we measure it, and how we strike a balance among competing values (p. 19).
>
> Mr. PRICE. There has been a lot of talk lately about social indicators out of a conviction that narrow economic, statistical consideration are not an adequate guide to economic policy, and here we are talking about a field in which it is not enough to know about the chemical industry and the biology (p. 67).

Technology was seen to be the savior as well as the villain in many environmental quality problems.

> Mr. PRICE. There is a tactic or an approach which has received a good bit of attention recently in technological and scientific literature. Mr. Weinberg, I think, called it the technological fix (p. 66).
>
> It is obviously true that the development of the specific techniques has proved to be not only the basis of our accumulation of wealth which now makes it possible for us to ask these more sophisticated questions about our environment, to have very much higher standards of environmental control to insist on (p. 68).

E. International Aspects of Environmental Alteration

The urgent necessity of taking into account major environmental influences of foreign economic assistance and other international developments was underscored by Mr. Russell Train.

Dr. Ivan Bennett commented that the Federal Government is now participating, through the Organization for Economic Cooperation and Development, in a series of cooperative programs that will encourage the exchange of environmental information.

Senator Henry Jackson recalled President Johnson's remarks at Glassboro State College on June 4 in which he said:

> Scientists from this country and the Soviet Union and from 50 other countries have already begun an international biological program to enrich our understanding of man and his environment. I propose that we make this effort a permanent concern of our nations (p. 83).

Dr. Roberts questioned whether these and similar ongoing cooperative efforts were fully adequate, and proposed that a broader international scheme of cooperative "bench mark" observations be made. As an example he described the neglected area of stratospheric contamination:

> It is now very difficult for us to say anything quantitative or certain about the degree to which the atmosphere above New York City, or Zurich, Switzerland, or the rural regions of the United States, Europe, and Siberia has been changing in respect to the burden of liquid or solid wastes that jet aircraft carry. I have seen many occasions when the skies over my home city of Boulder, Colo., are crisscrossed with expanding jet airplane contrails. Often these grow, in hours, to a general cirrus cover that blankets the entire sky. On these days it is eminently clear that the jet exhausts are stimulating the formation of a cloud deck. Theory suggests that these clouds, in turn, almost certainly modify the strength of incoming sunlight, and the degree to which outgoing infrared radiation is permitted to escape from the earth to outer space. No one can say for sure, today, to what degree, if any, this alters the weather (p. 217).

Dr. Ripley summarized the feeling of the colloquium:

> * * * to speak about environmental quality without at least referring to the fact of the international components and consequences of even our activity as Americans and considering our own acreage and our own problems with the environment, appears to me to be somewhat shortsighted (p. 74).

Senator Edmund Muskie argued that existing conservation policies deal too heavily with the permitted levels of resource exploitation at the expense of the equally important objective of enhancing these same resources.

To overcome this difficulty, Mr. Don Price suggested that countervailing policies might be established which would encourage and even make it profitable for private developers not to pollute, but actually upgrade the quality of our environment through the development of new resource-processing methods.

Assistant Secretary Lee mentioned that in the public health area a great deal of consideration has been devoted to the subtle health effects of many pollutants, but that the management problem of setting standards is made all the more difficult by the constantly changing character of chemicals being added to the environment. As part of the standard setting process, he proposed that it may eventually be necessary to require industries

> * * * to demonstrate a positive beneficial effect, or an enhancement of the environment as suggested by Senator Muskie, rather than just an absence of deleterious effect (p. 71).

Dr. Harvey Brooks argued that we could easily move too far and

> * * * place a presumption so much against new technology that in fact the disincentives to innovation would create

more penalties to the society than the protection to the environment that might be afforded (p. 71).

Standards which are derived from criteria should not be absolute and unchanging, thereby compounding further the difficulties in the management decisionmaking process.

> Dr. HORNIG. * * * the minute one sets standards—standards which cost people money—the question immediately comes: what is the basis for these standards? If they don't have a strong credible basis, not only to the Congress, but to the public, we can't enforce the standards (p. 51).
>
> Mr. PRICE. How do we set standards? How do we know what we want to do until we can define more accurately our problem and develop some better measurements for it? (p. 67).
>
> It gets especially harder when you move away from the physical or the chemical pollution and you get into the esthetic type of consideration (p. 67).
>
> Mr. TRAIN. * * * I'm suspicious of talk of absolute standards. I think that there must be a great deal of diversity in whatever we get at (p. 81).
>
> Senator MUSKIE. We ought to avoid the straitjacket of Federal standards * * * (p. 44).

F. The Goals of Enhancement and Recycling

The American landscape is under extraordinary pressure from man-made refuse and other discarded material. Secretary Udall singled out the empty metal beer can as an example:

> Science should come up with containers that readily degrade, disappear, or are made reusable. If we work hard at it, the expense won't be any burden and we won't foist on our grandchildren a mess of some kind as we do so frequently today (p. 50).

Dr. Gates suggested that the solution to this ubiquitous problem rests in the analogy between natural and human recycling of resources.

> A natural ecosystem recycles its mineral resources. The minerals are taken up into the biomass and on death and decay are returned to the soil. Man leaves his debris of automobiles, cans, bottles, plastics, chemicals, and pavement scattered about the landscape and lets his organic refuse of garbage and sewage be funneled into the rivers and streams to be washed to sea.
>
> He does not return the used minerals to the factory for reprocessing or the nutrients to the soil, but draws on new concentrated supplies available in nature. Clearly, such a way of life cannot continue indefinitely. Recycling will never achieve 100–percent efficiency; but if it can reach much greater efficiencies than at present, man's lifespan on earth will be much longer (p. 176).

G. New Approaches in Government

Senator Henry Jackson argued that new approaches to environmental management are now required, and urged the Colloquium to provide thoughts on the possible "action-forcing" processes that could be put into operation.

Secretary Udall pointed out the difficulty of reorganizing the executive branch on a strictly environmental basis:

> Let no one suppose there is any organizational panacea for dealing with environmental problems at the Federal level * * *. To combine all programs affecting the environment in one department would obviously be physically impossible.
>
> Each agency should designate responsible officials and establish environmental checkpoints to be sure they have properly assessed this impact.
>
> Whether or not new institutional arrangements are accepted, the Bureau of the Budget and the Office of Science and Technology must play a central role in collecting facts, anticipating impacts and providing an early warning system for environmental protection (p. 18).

Secretary Cohen outlined existing patterns of agency leadership:

> In certain discrete, well-defined areas activities have been organized under the "lead agency" concept * * *. The second pattern involves multiple rather than single agency leadership, primarily because it must accommodate a variety of interests, no one of which takes precedence (p. 38.)

Dr. Donald Hornig stressed the power of the Presidency to coordinate and translate policy into action:

> The principle, the authority for oversight and coordination—and in fact, Executive responsibility for management—is vested in the President; it is exercised through the Executive Office of the President, particularly by the Office of Science and Technology and the Bureau of the Budget in this respect. We have been working very hard on this problem of coordination, and we have made much progress. But, if our efforts turn out to be insufficient, further steps will surely be necessary and new organizational forms may be needed in the Executive Office (p. 32).

Assistant Secretary Baker related early experiences of the USDA with the systems approach:

> We [Agriculture] are developing a Department-wide systems analysis capability for evaluating and interpreting the on-going programs. * * * We seek to organize our efforts in ways that will make them compatible with efforts that may be undertaken by other agencies (p. 26).

Secretary Weaver warned of the difficulties in obtaining a regional or "problem-shed" management of environmental quality:

> There is a serious problem of stubborn resistance to change in our political institutions. This is true at the local and State level, where the term "metropolitan government" is a spark to the tinder, and where needed cooperation among neighboring local governments is sometimes resisted for fear it will lead to metropolitan government * * *. This means that at the Federal level, we should and we have helped create institutions for metropolitan subsystems that can handle problems affecting the environment of whole areas (pp. 20 and 21).

Mr. Laurance Rockefeller stressed the value of a commission comprising legislative, executive, and private sector members:

> I suggest to you that an effective means of proceeding might be a Commission on Environmental Policy Organization.
>
> It may be that this task can be done by some entity less formal than a Commission. The Citizens Advisory Committee on Recreation and Natural Beauty plans to make the environment subject one of its major interests during the coming year.
>
> The Committee is, of course, directed to make its recommendations to the President and the President's Council on Recreation and Natural Beauty. (pp. 6 and 7.)

The Congress was discussed in terms of its own organizational confusion in treating environmental issues.

> Mr. ROCKEFELLER. The layman is confused by the organization of Congress in the environmental field. (p. 6.)
>
> Secretary UDALL. There is still a lack of overview. (P. 13.) * * * I think Congress ought to be much less bashful about spending more money on strengthening its staff so it can provide the kind of oversight that is needed. (p. 54.)
>
> Secretary COHEN. We recommend that the Congress examine its own organization in order to improve its ability to deal in a comprehensive and coordinated manner with the total problem of environmental quality. (p. 40.)
>
> Senator ALLOTT. * * * Congress has abrogated its responsibilities to a great extent with respect to legislative oversight. (p. 54.)
>
> Mr. PRICE. Congress too might have an eye to its own organization in these matters: How far it would be possible to go on from this kind of occasional informal exchange of views toward either special nonlegislative committees like the Joint Committee on the Economic Report, perhaps in conjunction with some development within the President's Office; how far pieces of jurisdiction could be carved out for legislative committees; how far the burden of coordination could be forced on the Appropriations Committee * * * (p. 69.)

PART II. ALTERNATIVES FOR CONGRESSIONAL ACTION

An impressive number and variety of legislative proposals for improving the quality of our environment have been set before the 90th Congress (see appendix). Support for action has come from diverse segments of American society: from the scientific community, from business, and from public affairs groups.

The Congress should move ahead to define clearly the desires of the American people in operational terms that the President, government agencies at all levels, the courts, private enterprise, and the public can consider and act upon.

The ultimate responsibility for protecting the human-serving values of our environment rests jointly with the legislative, executive, and judicial branches of our Government. The Congress, as a full partner, has the obligation to provide comprehensive oversight of all environment-affecting programs of the executive branch, and also to participate in the overall design of national policy, thus serving both as architect of environmental management strategy and as the elaborator of goals and principles for guiding future legal actions.

Under the present organization of the Congress, varying aspects of environmental management (including air and water pollution control, strip mine reclamation, outdoor recreation, housing and space planning in urban areas, highway construction, atmospheric research, oceanography, and rural conservation) are committed to different committees. While there has been a steady expansion of independent committee interest in specific environmental problems, the Congress so far has not evaluated this field in its entirety with a view toward evolving a coherent and unified policy for national environmental management.

It should be recognized that the declaration of a national environmental policy will not alone better or enhance the total man-environment relationship. The present problem is not simply the lack of a policy. It also involves the need to rationalize and coordinate existing policies, and to provide the means by which they may be reviewed continuously, made consistent with other national policies and ranked in reasonable priority.

The proper development of such a far-reaching body of policy raises many difficult organizational, economic and legal problems. Some individuals who were present at the July 17 colloquium suggested that a congressional mandate on the subject of environment, which would necessarily encompass a very wide range of problems and issues, would be impractical and ineffective. Yet others pointed out that equally broad mandates and satisfactory organizing concepts for managing our economic welfare and for guiding the development of atomic energy have been tested over a period of years, with effective machinery now operating both in the executive and legislative branches to evaluate the extent to which national goals and activities in these fields are meeting public expectations and needs.

In any event, to those involved in the colloquium and recent hearings on this subject, it is clear that two functions must be served: coordination and information gathering. Environmental problems cut across so many existing operational organizations that coordination in both the executive and legislative branches must be improved. Further, an effective channel of information exchange and overview must exist between the Congress and the administration. If, for example, an environmental council were established in the Executive Office of the President, as has been proposed, it should be complemented with a corresponding joint congressional committee for purposes of efficient and continued interaction.

The acquisition and evaluation of information specifically for the Congress must be improved. Raw facts and data from ecological and economic studies must be interpreted to be useful in the legislative process. This function should be performed in an organization reporting directly to the Congress; for example, a strong joint committee staff or an expanded Legislative Reference Service environmental unit.

Congress (regardless of present or future executive branch approaches) may exert a meaningful influence on the formulation of national environmental policy by embarking on one or a combination of the following steps: [1]

A. A *concurrent resolution* could be introduced declaring the strong interest of the Congress in establishing national environmental policy.

This would represent a firm expression of concern on the part of the Congress about environmental deterioration, but would not be a direct confrontation with the task of defining national policy. The resolution might urge the creation of an appropriate body to investigate all matters relating to environmental management; to analyze the means and methods whereby the organization, administration, and funding of government programs affecting the environment may be improved; and, to determine the ways whereby nongovernmental entities could be encouraged to participate in overcoming further deterioration of the environment in the national interest. Hearings on the resolution could provide a forum for a wide range of opinion.

B. A *joint resolution* calling for an amendment to the Constitution on the subject of environmental values could be introduced.

This would require approval by two-thirds of the Congress and ratification by three-fourths of the States. The amending process is both slow and cumbersome. Moreover, acceptance would require a tremendous groundswell of support. However, a proposed amendment would generate wide discussion and involve the State legislatures which are vitally important in achieving environmental quality goals. The advantage of constitutional amendments lies in the unanimity of national commitment. Such an amendment for the environment could place expanded emphasis on the judicial process as an instrument of controlling future abuse of environmental values.

[1] This white paper deals with action alternatives for the Congress. Obviously the spectrum of organizational and administrative alternatives for policy in the executive branch is equally important. These range from definition of rights with court defense, to regulation by Federal agency, to standard setting, to incentives for voluntary conformance, to subsidy of technology for restoration and maintenance.

C. A *joint committee or committees on environmental management* could be established to provide across-the-board oversight on Federal programs, to conduct studies with the assistance of professional staff, and to recommend legislation. Alternatively, select or permanent committees could be established in each House.

Such committees could draw membership from existing legislative committees involved with environmental matters, and perhaps focus primarily on the review of policy and coordination matters dealt with by such groups as the Office of Science and Technology, Water Resources Council, the Council on Recreation and Natural Beauty, and various interagency coordinating committees.

D. A new *environmental surveillance unit* to conduct research and information-gathering services for the Congress could be organized.

In the past, Congress has shown reluctance to add new appendages of this sort to the legislative branch. An alternative might be an expansion of the functions of the General Accounting Office to make continuing studies of environmental conflicts and to prepare appropriate reports for transmittal to the Congress. New staff positions and additional funding would be required.

E. The Congress could establish a *nongovernmental task force* to carry out in its behalf a special study of environmental policy needs.

Such a task force could engage the services of private research organizations and draw its membership from the finest talent available in the academic community. The task force could be administered directly by the Congress or made the responsibility of some arm of the Congress such as the Legislative Reference Service, Library of Congress, which has the authority to employ experts on short-term assignments.

F. A temporary *environment management council* could be organized.

Such a council might be similar in organization and operation to the National Council on Marine Resources and Engineering Development. Its purposes could be to identify all unmet needs and opportunities in the environmental field, to study impediments to sound environmental management, conflicts of interest and gaps in existing agency and congressional activities, and to develop recommendations for legislative action within a specified period of years.

The Congress would retain an overview of the council and would control the budget for its operation. Establishment of a policy planning group in the Executive Office of the President forces the generation of proposals to the Congress. A receiving committee should be set up to correspond to this Council, similar to the Joint Economics Committee and the Council of Economic Advisers.

G. A governmental *commission* could be established for the same purposes.

The commission could be composed entirely of Congressmen, perhaps the chairman of key committees which deal with environmental matters. Or it could be a Joint Commission including representation from the executive branch and the public at large. A third type would

be a Presidental Commission with members chosen at the discretion of the Chief Executive. Through a combination of studies and hearings, the Commission could be asked to produce a blueprint for legislative action in the environmental field.

H. The *Legislative Reference Service* could be directed to add a central research and evaluation unit on environmental matters.

A precedent is the establishment of the Science Policy Research Division in 1964.

I. An *environmental counselor* could be placed on the staff of each appropriate standing committee of the Congress.

The purpose would be to increase the technical staff available for committee work. Each counselor could be given the permanent responsibility of advising the committee to which he was assigned on the probable environmental impact of all pending legislation.

PART III. ELEMENTS OF A NATIONAL POLICY FOR THE ENVIRONMENT

The following language is suggested for a statement of policy, and reflects primarily the proposed position and attitude of the Federal Government, but also could be used for the guidance of State and local governments, private sector industry and commerce, and individual actions. Activities and relationships which involve man and the physical environment (as contrasted with purely person-to-person or person-to-institution relationships) are the subject of this statement.

It is the policy of the United States that:

- **Environmental quality and productivity shall be considered in a worldwide context, extending in time from the present to the long-term future.**
- **Purposeful, intelligent management to recognize and accommodate the conflicting uses of the environment shall be a national responsibility.**
- **Information required for systematic management shall be provided in a complete and timely manner.**
- **Education shall develop a basis of individual citizen understanding and appreciation of environmental relationships and participation in decisionmaking on these issues.**
- **Science and technology shall provide management with increased options and capabilities for enhanced productivity and constructive use of the environment.**

The requirement to maintain and enhance long-term productivity and quality of the environment takes precedence over local, short-term usage. This policy recognizes the responsibility to future generations of those presently controlling the development of natural resources and the modification of the living landscape. Although the influence of the U.S. policy will be limited outside of its own borders, the global character of ecological relationships must be the guide for domestic activities. Ecological considerations should be infused into all international relations.

World population and food production must be brought into a controlled balance consistent with a long-term future continuation of a satisfactory standard of living for all.

Energy must be allocated equitably between production and the restoration, maintenance, and enhancement of the environment. Research should focus on solar energy and fusion energy for the long term, and on energy conversion processes with minimum environmental degradation for the short term.

In meeting the objectives of environmental management, it will be necessary to seek the constructive compromise, and resolutely preserve future options.

Priorities and choices among alternatives in environmental manipulation must therefore be planned and managed at the highest level of

our political system. All levels of government must require developments within their purview to be in harmony with environmental quality objectives.

Alteration and use of the environment must be planned and controlled rather than left to arbitrary decision. Alternatives must be actively generated and widely discussed. Technological development, introduction of new factors affecting the environment, and modifications of the landscape must be planned to maintain the diversity of plants and animals. Furthermore, such activities should proceed only after an ecological analysis and projection of probable effects. Irreversible or difficultly reversible changes should be accepted only after the most thorough study.

The system of free enterprise democracy must integrate long-term public interests with private economic prosperity. A full range of incentives, inducements, and regulations must be used to link the public interest to the marketplace in an equitable and effective manner.

Manufacturing, processing, and use of natural resources must approach the goal of total recycle to minimize waste control and to sustain materials availability. Renewable resources of air and water must be maintained and enhanced in quality for continued use.

A broad base of technologic, economic, and ecologic information will be necessary. The benefits of preventing quality and productivity deterioration of the environment are not always measurable in the marketplace. Ways must be found to add to cost-benefit analyses nonquantifiable, subjective values for environmental amenities (which cannot be measured in conventional economic terms).

Wherever the maintenance of environmental productivity or the prevention of environmental deterioration cannot be made economical for the private sector, government must find appropriate means of cost-sharing.

Ecological knowledge (data and theories) must be greatly expanded and organized for use in management decisions. Criteria must be established which relate cause and effect in conditions of the environment.

Indicators for all aspects of environmental productivity and quality must be developed and continuously measured to provide a feedback to management. In particular, the environmental amenities (recreational, esthetic, psychic) must be evaluated. Social sciences must be supported to provide relevant and dependable interpretation of information for environmental management.

Standards of quality must not be absolute—rather, they should be chosen after balancing all criteria against the total demands of society. Standards will vary with locality, must be adjusted from time to time, and we must develop our capabilities accordingly.

Decisions to make new technological applications must include consideration of unintended, unanticipated, and unwanted consequences. Technology should be directed to ameliorating these effects so that the benefits of applied science are retained.

Public awareness of environmental quality relationships to human welfare must be increased. Education at all levels should include an appreciation of mankind's harmony with the environment. A literacy as to environmental matters must be built up in the public mind. The ultimate responsibility for improved maintenance and control of the environment rests with the individual citizen.

APPENDIX

SELECTED ISSUES AND REPRESENTATIVE LEGISLATION INTRODUCED IN THE 90TH CONGRESS

SENATE

The bills are grouped as to committee referral. Nineteen committees and over 120 members are represented.

	Bill number	Introduced by—
Committee on Agriculture and Forestry:		
Resource and development projects for fish and wildlife	S. 852	Mr. McCarthy.
Pesticides: Sale and shipment of DDT prohibited	S. 1025	Mr. Nelson.
Federal Pesticide Control Act	S. 2058	Mr. Ribicoff.
Committee on Commerce:		
Tanker Disaster Act	S. 1586	Mr. Magnuson et al.
Alewife control, preventing damage to the ecology	S. 2123	Mr. Nelson.
Endangered Species Act	S. 2984	Mr. Yarborough.
Committee on Finance:		
Tax treatment of damages for crop injury through pollution	S. 84	Mr. Holland.
Incentive tax credits applicable to air or water pollution control and abatement facilities. Similar bills introduced by Senators Carlson, Cooper, and Ribicoff.	S. 187	Mr. Smathers.
Committee on Foreign Relations:		
Endorsement of International Biological Program	S. Con. Res. 26	Mr. Harris.
Committee on Government Operations:		
Select Committee on Technology and Human Environment	S. Res. 68	Mr. Muskie.
Full Opportunity and Social Accounting Act; establishment of a Council of Social Advisers.	S. 843	Messrs. Mondale, Clark, Hart, Harris, Inouye, Kennedy, McGee, Muskie, Nelson, Proxmire.
Department of Natural Resources Act	S. 886	Mr. Moss.
Committee on Interior and Insular Affairs:		
National Water Commission	S. 20	Mr. Jackson et al.
Wild Rivers Act: Public lands reserved for National Wild Rivers System.	S. 119	Mr. Church.
Nationwide System of Trails	S. 827	Messrs. Jackson and Nelson.
National Mining and Minerals Policy Act	S. 522	Mr. Allott et al.
Land and water conservation fund	S. 1401	Mr. Jackson et al.
National Lakes Preservation Act	S. 2001	Mr. Nelson.
Research program on natural environmental systems of the United States.	S. 2789	Mr. Nelson.
Council on Environmental Quality; Investigation of U.S. ecological systems, natural resources, and environmental quality.	S. 2805	Messrs. Jackson and Kuchel.
Mined land reclamation	S. 217	Mr. Lausche.
Inventory and study of the Nation's estuaries	S. 2677	Mr. Metcalf.
Committee on Labor and Public Welfare:		
Annual Presidential report on science and technology; Joint Committee on Science and Technology.	S. 1305	Mr. Allott et al.
Federal Council of Health	S. 1347	Mr. Javits.
Safe Drinking Water Act	S. 3147	Mr. Hill.
Committee on Public Works:		
Air Quality Act of 1967	S. 780	Messrs. Muskie, Baker, Bartlett, Bayh, Bible, Boggs, Brewster, Clark, Cooper, Fong, Gruening, Hartke, Inouye, Long (Mo.), Mansfield, Metcalf, Mondale, Montoya, Morse, Murphy, Nelson, Randolph, Ribicoff, Spong, Tydings, Yarborough, Young (Ohio).
Federal Water Pollution Control Act amplified by: Industrial Air Pollution Abatement and Prevention Act, Navigable Waters Pollution Control Act.	S. 847 S. 2410 S. 849	Mr. Nelson. Mr. Nelson. Mr. Nelson.
Clean Lakes Act	S. 1341	Mr. Mondale et al.
Highway Beautification Act amendment	S. 1666	Mr. Cooper.
Acid mine pollution control	S. 1870	Messrs. Randolph, Clark.
Improved control of pollution from vessels	S. 2525	Mr. Muskie et al.
R. & D. program by Department of Interior for improved control and prevention of pollution.	S. 2760	Mr. Muskie et al.
Regional water pollution control advisory boards	S. 2820	Mr. Tower.
Environmental Quality Prevention Act, Council on Environmental Quality.	S. 3031	Mr. Nelson.
Extension of Federal assistance for solid waste disposal planning.	S. 3201	Mr. Muskie et al.

HOUSE

	Bill number	Introduced by—
Committee on Agriculture:		
Federal Pesticide Control Act	H.R. 11846	Mr. Dingell.
Control of noxious plants on federally controlled land	H.R. 14158	Mr. Foley.
Committee on Banking and Currency:		
Federal development grants for open space land	H.R. 5865	Mr. O'Hara.
Committee on Government Operations:		
Consolidation of water quality management and pollution control authorities in Department of the Interior.	H.R. 3753 H.R. 4893	Mr. Dingell. Mr. Moss.
Establishment of Department of Marine and Atmospheric Affairs.	H.R. 4480	Mr. Hathaway.
Uniform land acquisition policy in urban areas	H.R. 5523	Mr. Dwyer.
Council of Social Advisers	H.R. 10261	Mr. Ottinger.
National Commission on Urban Living	H.R. 12494	Mr. Goodell.
Establishment of Department of Health	H.R. 15641	Mr. Rosenthal.
Committee on Interior and Insular Affairs:		
National scenic river system	H.R. 90	Mr. Saylor.
Investigation of the natural environmental systems in the United States by Department of the Interior.	H.R. 258	Mr. Bennett.
Fresh water supply for the Northeastern United States	H.R. 1022	Mr. Ottinger.
Public Land Law Review Commission	H.R. 12121	Mr. Aspinall.
National Study Commission Act	H.R. 1416	Mr. Ullman.
National Study Commission on Water Conservation and Utilization.	H.R. 5020	Mr. Wyatt.
Review of Nation's water resource problems	H.R. 6800	Mr. Helstoski.
Land and water conservation fund	H.R. 8578	Mr. Foley.
Wild and Scenic Rivers Act. Similar bill: H.R. 15429 (Mr. Fulton of Tennessee).	H.R. 15690	Mr. Fraser.
Nationwide trails system	H.R. 4865	Mr. Taylor.
Committee on Interstate and Foreign Commerce:		
Pesticides; standards	H.R. 495	Mr. Dingell.
HUD study of potential damage to environment from erection of overhead electric transmission lines and towers.	H.R. 4150	Mr. Ottinger.
Air Quality Act of 1967: The act incorporates provisions which appear as sections of numerous other bills. Some Members who authored similar bills are: Messrs. Horton, Halpern, Springer, Dingell, Adams, Eckhart, Minish, Ryan, Long of Maryland, McCarthy, Moorhead, Rosenthal, Adams, Dent, Farbstein, Delaney, Gilbert, Murphy, Van Deerlin, Walker, Mrs. Kelly, Messrs. Johnson of Pennsylvania, Patten, Howard, Corman, Helstoski, Tunney, Eilberg, Fino, Pucinski, Roybal.	H.R. 4279	Mr. Staggers.
Establishes regional airshed quality commissions and airshed quality regions.	H.R. 8601	Mr. Blatnik.
Prohibits construction of power transmission lines on Interior-designated public lands.	H.R. 11509	Mr. Reuss.
Control and abatement of aircraft noise	H.R. 14935	Mr. Scheuer.
Solid wastes: extend and amend Public Health Service Act.	H.R. 15769	Mr. Staggers.
Committee on the Judiciary:		
Conservation bill of rights	H.J. Res. 1321	Mr. Ottinger.
Marine Resources Conservation and Development Act	H.R. 17333	Mr. Willis.
Committee on Merchant Marine and Fisheries:		
Development and preservation of U.S. estuarine areas	H.R. 25	Mr. Dingell.
Navigable Water Pollution Control Act	H.R. 486	Mr. Dingell.
Protection of fish and wildlife resources from effects of Federal projects.	H.R. 6731	Mr. Ottinger.
Coast Guard R. & D. related to release of harmful fluids from vessels.	H.R. 9116	Mr. Howard.
Establishment of Marine Sanctuaries	H.R. 11584	Mr. Keith.
Congressional policy concerning authority to control fish and wildlife resources.	H.R. 14849	Mr. Vander Jagt.
Endangered Species Act	H.R. 11618	Mr. Lennon.
Coast Guard studies of oil pollution	H.R. 14852	Mr. Keith.
Prevention of damage to fish and wildlife from pesticides	H.R. 15979	Mr. Karth.
Environmental Science Services Administration Commissioned Officers Corps Act.	H.R. 17993	Mr. Garmatz.
Committee on Public Works:		
Federal Water Commission Act	H.R. 1252	Mr. Ryan.
Detergent Pollution Control Act	H.R. 8752	Mr. Eilberg.
Department of Interior's R. & D. program to improve the quality of lake waters.	H.R. 10751	Mr. Hanley.
Federal highway system beautification	H.R. 11705	Mr. Adams.
Clean Lakes Act	H.R. 13407	Mr. Zwach.
Control of acid and mine water pollution; similar bill introduced by Mr. Bevill (H.R. 16133).	H.R. 14000	Mr. Nedzi.
Oil and Hazardous Substance Pollution Control Act	H.R. 15906	Messrs. Fallon, Blatnik.
Water pollution control, Federal installations: prevention of discharge of heated effluents.	H.R. 16852	Mr. Dingell.

HOUSE

	Bill number	Introduced by—
Committee on Rules:		
Joint congressional committee to study problems of extraordinary pollution of air and navigable waters in the United States.	H. Con. Res. 307	Mr. St. Onge.
House Standing Committee on Urban Affairs	H. Res. 1062	Mr. Cowger.
Select Committee on Technology and Human Environment	H. Res. 1116	Mr. Brown of California.
Committee on Science and Astronautics:		
Congressional support of international biological program	H. Con. Res. 6698	Mr. Miller of California.
Technology Assessment Board and General Advisory Council	H.R. 6698	Mr. Daddario.
Council on Environmental Quality	H.R. 7796	Mr. Dingell.
Council of Ecological Advisers	H.R. 13211	Mr. Tunney.
Do	H.R. 14605	Mr. Matsunaga.
Do	H.R. 14627	Mr. Corman.
Committee on Ways and Means:		
Incentive tax credit for construction of air or water pollution control facilities; similar bills presented by Messrs. Collier, Corbett, Feighan, Casey, Fuqua, Anderson, Perkins, Slack, Byrne, Reifel, Berry, King, Johnson of Pennsylvania, McClory, Zion, Whalley, Schweiker, Halpern, Schneebeli, Andrews, Steiger, Cederberg, Kupferman, Keith, Hall, MacGregor, Mize, Meskill, Smith of New York, Teague.	H.R. 385	Mr. Clancy.
Clean Lakes Act	H.R. 16257	Mr. Blackburn.

○

EXHIBIT 3

Calendar No. 287

91st Congress
1st Session

SENATE

Report
No. 91-296

NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

JULY 9, 1969.—Ordered to be printed

Mr. JACKSON, from the Committee on Interior and Insular Affairs, submitted the following

REPORT

[To accompany S. 1075]

The Committee on Interior and Insular Affairs, to which was referred the bill (S. 1075) to authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality, having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.

The amendments are as follows:

Strike out all after the enacting clause and insert the following language:

SHORT TITLE

SEC. 1. That this Act may be cited as the "National Environmental Policy Act of 1969".

PURPOSE

SEC. 2. The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Board of Environmental Quality Advisers.

TITLE I

DECLARATION OF NATIONAL ENVIRONMENTAL POLICY

SEC. 101. (a) The Congress, recognizing that man depends on his biological and physical surroundings for food, shelter, and other needs, and for cultural enrichment as well; and recognizing further the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances on our physical and biological surroundings and on the quality of life available to the American people; hereby declares that it is the continuing policy and responsibility of the Federal Govern-

87-010 O—69——1

ment to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(b) The Congress recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

SEC. 102. The Congress authorizes and directs that the policies, regulations, and public laws of the United States to the fullest extent possible, be interpreted and administered in accordance with the policies set forth in this Act, and that all agencies of the Federal Government—

(a) utilize to the fullest extent possible a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(b) identify and develop methods and procedures which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(c) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a finding by the responsible official that—

(i) the environmental impact of the proposed action has been studied and considered;

(ii) any adverse environmental effects which cannot be avoided by following reasonable alternatives are justified by other stated considerations of national policy;

(iii) local short-term uses of man's environment are consistent with maintaining and enhancing long-term productivity; and that

(iv) any irreversible and irretrievable commitments of resources are warranted.

(d) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of land, water, or air;

(e) recognize the worldwide and long-range character of environmental problems and lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment; and

(f) review present statutory authority, administrative regulations, and current policies and procedures for conformity to the purposes and provisions of this Act and propose to the President and to the Congress such measures as may be necessary to make their authority consistent with this Act.

SEC. 103. The policies and goals set forth in this Act are supplementary to, but shall not be considered to repeal the existing mandates and authorizations of Federal agencies.

TITLE II

SEC. 201. To carry out the purposes of this Act, all agencies of the Federal Government in conjunction with their existing programs and authorities, are hereby authorized—

(a) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality;

(b) to document and define changes in the natural environment, including the plant and animal systems, and to accumulate necessary data and other

information for a continuing analysis of these changes or trends and an interpretation of their underlying causes;

(c) to evaluate and disseminate information of an ecological nature to public and private agencies or organizations, or individuals in the form of reports, publications, atlases, and maps;

(d) to make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(e) to initiate and utilize ecological information in the planning and development of resource-oriented projects;

(f) to conduct research and studies within natural areas under Federal ownership which are under the jurisdiction of the Federal agencies; and

(g) to assist the Board of Environmental Quality Advisers established under title III of this Act and any council or committee established by the President to deal with environmental problems.

SEC. 202. (a) In carrying out the provisions of this title, the President is authorized to designate an agency or agencies to—

(1) make grants, including training grants, and enter into contracts or cooperative agreements with public or private agencies or organizations, or individuals, and to accept and use donations of funds, property, personal services, or facilities to carry out the purposes of this Act;

(2) develop and maintain an inventory of existing and future natural resource development projects, engineering works, and other major projects and programs contemplated or planned by public or private agencies or organizations which make significant modifications in the natural environment;

(3) establish a system of collecting and receiving information and data on ecological research and evaluations which are in progress or are planned by other public or private agencies or organizations, or individuals; and

(4) assist and advise State and local government, and private enterprise in bringing their activities into conformity with the purposes of this Act and other Acts designed to enhance the quality of the environment.

(b) There are hereby authorized to be appropriated $500,000 annually for fiscal years 1971 and 1972, and $1,000,000 for each fiscal year thereafter.

SEC. 203. In recognition of the additional duties which the President may assign to the Office of Science and Technology to support any council or committee established by the President to deal with environmental problems and in furtherance of the policies established by this Act, there is hereby established in the Office of Science and Technology an additional office with the title "Deputy Director of the Office of Science and Technology." The Deputy Director shall be appointed by the President by and with the advice and consent of the Senate, shall perform such duties as the Director of the Office of Science and Technology shall from time to time direct, and shall be compensated at the rate provided for Level IV of the Executive Schedule Pay Rates (5 U.S.C. 5315).

TITLE III

SEC. 301. (a) There is created in the Executive Office of the President a Board of Environmental Quality Advisers (hereinafter referred to as the "Board"). The Board shall be composed of three members who shall be appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate. Each member shall, as a result of training, experience, or attainments, be professionally qualified to analyze and interpret environmental trends of all kinds and descriptions and shall be conscious of and responsive to the scientific, economic, social, esthetic, and cultural needs and interest of this Nation. The President shall designate the Chairman and Vice Chairman of the Board from such members.

(b) Members of the Board shall serve full time and the Chairman of the Board shall be compensated at the rate provided for Level II of the Executive Schedule Pay Rates (5 U.S.C. 5313). The other members of the Board shall be compensated at the rate provided for Level IV of the Executive Schedule Pay Rates (5 U.S.C. 5315).

SEC. 302. (a) The primary function of the Board shall be to study and analyze environmental trends and the factors that effect these trends, relating each area of study and analysis to the conservation, social, economic, and health goals of this Nation. In carrying out this function, the Board shall—

(1) report at least once each year to the President on the state and condition of the environment;

(2) provide advice, assistance, and staff support to the President on the formulation of national policies to foster and promote the improvement of environmental quality; and

(3) obtain information using existing sources, to the greatest extent practicable, concerning the quality of the environment and make such information available to the public.

(b) The Board shall periodically review and appraise Federal programs, projects, activities, and policies which affect the quality of the environment and make recommendations thereon to the President.

(c) It shall be the duty and function of the Board to assist and advise the President in the preparation of the annual environmental quality report required under section 303.

(d) The Board and the Office of Science and Technology shall carry out their duties under the provisions of this Act at the direction of the President and shall perform whatever additional duties he may from time to time direct.

SEC. 303. The President shall transmit to the Congress, beginning June 30, 1970, an annual environmental quality report which shall set forth: (a) the status and condition of the major natural, manmade, or altered environmental classes of the Nation; and (b) current and foreseeable trends in quality, management, and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation.

SEC. 304. The Board may employ such officers and employees as may be necessary to carry out its functions under this Act. In addition, the Board may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its functions under this Act, in accordance with section 3109 of title 5, United States Code (but without regard to the last sentence thereof).

SEC. 305. There are hereby authorized to be appropriated $1,000,000 annually to carry out the purposes of this title.

Amend the title so as to read: "A bill to establish a national policy for the environment; to authorize studies, surveys, and research relating to ecological systems, natural resources, and the quality of the human environment; and to establish a Board of Environmental Quality Advisers."

INTRODUCTION

It is the unanimous view of the members of the Interior and Insular Affairs Committee that our Nation's present state of knowledge, our established public policies, and our existing governmental institutions are not adequate to deal with the growing environmental problems and crises the Nation faces.

The inadequacy of present knowledge, policies, and institutions is reflected in our Nation's history, in our national attitudes, and in our contemporary life. We see increasing evidence of this inadequacy all around us: haphazard urban and suburban growth; crowding, congestion, and conditions within our central cities which result in civil unrest and detract from man's social and psychological well-being; the loss of valuable open spaces; inconsistent and, often, incoherent rural and urban land-use policies; critical air and water pollution problems; diminishing recreational opportunity; continuing soil erosion; the degradation of unique ecosystems; needless deforestation; the decline and extinction of fish and wildlife species; faltering and poorly designed transportation systems; poor architectural design and ugliness in public and private structures; rising levels of noise; the continued proliferation of pesticides and chemicals without adequate consideration of the consequences; radiation hazards; thermal pollution; an increasingly ugly landscape cluttered with billboards, powerlines, and junkyards; and many, many other environmental quality problems.

Traditional national policies and programs were not designed to achieve these conditions. But they were not designed to avoid them either. And, as a result, they were not avoided in the past. They are not being avoided today.

Traditional policies were primarily designed to enhance the production of goods and to increase the gross national product. As a nation, we have been very successful at these endeavors. Our gross national product is approaching $900 billion a year. The American people enjoy the highest standard of living in the world. Our technological ability is unrivaled. But, as a nation, we have paid a price for our material well-being. That price may be seen today in the declining quality of the American environment.

As the evidence of environmental decay and degradation mounts, it becomes clearer each day that the Nation cannot continue to pay the price of past abuse. The costs of air and water pollution, poor land-use policies and urban decay can no longer be deferred for payment by future generations. These problems must be faced while they are still of manageable proportions and while alternative solutions are still available.

If the United States is to create and maintain a balanced and healthful environment, new means and procedures to preserve environmental values in the larger public interest, to coordinate Government activities that shape our future environment, and to provide guidance and incentives for State and local government and for private enterprise must be devised.

In spite of the growing public recognition of the urgency of many environmental problems and the need to reorder national goals and priorities to deal with these problems, there is still no comprehensive national policy on environmental management. There are limited policies directed to some areas where specific problems are recognized to exist, but we do not have a considered statement of overall national goals and purposes.

As a result of this failure to formulate a comprehensive national policy, environmental decisionmaking largely continues to proceed as it has in the past. Policy is established by default and inaction. Environmental problems are only dealt with when they reach crisis proportions. Public desires and aspirations are seldom consulted. Important decisions concerning the use and the shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.

Today it is clear that we cannot continue on this course. Our natural resources—our air, water, and land—are not unlimited.[1] We no longer have the margins for error that we once enjoyed. The ultimate issue posed by shortsighted, conflicting, and often selfish demands and pressures upon the finite resources of the earth are clear. As a nation, and as a world, we face these conditions:

A population which is doubling at increasingly shorter intervals;

Demands for resources which are growing at a far greater rate than population; and

[1] An excellent up-to-date assessment of our present resource posture has been prepared by the Committee on Resources and Man, National Academy of Sciences-National Research Council. The summary of findings and recommendations is presented as appendix 1 of the hearings before the Senate Interior Committee, "National Environmental Policy," Apr. 16, 1969.

A growing technological power which is far outstripping man's capacity to understand and ability to control its impact on the environment.

The committee believes that America's capacity as a nation to confront these conditions and deal more effectively with the growing list of environmental hazards and problems resulting from these conditions can be improved and broadened if the Congress clarifies the goals, concepts, and procedures which determine and guide the programs and the activities of Federal agencies. Moreover, this can be done with the reasonable prospect that State, local, and private action will also be favorably influenced.

The committee is aware, as are other committees of both Houses which handle environmental legislation, that it is extremely difficult in our increasingly complex Government to achieve coordinated responses among the numerous Federal agencies [2] (aside from private enterprise and State and local agencies) involved in the multiple uses of our Nation's natural resources unless there are established common approaches to determine what actions are necessary to advance the public interest in healthful and quality surroundings. To provide a basis for advancing the public interest, a congressional statement is required of the evolving national objectives of managing our physical surroundings, our land, air, water, open space, and other natural resources and environmental amenities.

In view of this situation, the committee considered, amended and reported S. 1075 to the floor of the Senate.

EXPLANATION OF AMENDMENTS

The committee amended the bill by striking all after the enacting clause, substituting a new text, and amending the title of the bill.

The revised text adopts a number of changes which were suggested to the committee by the administration, representatives of the executive agencies, public witnesses, and committee members during consideration of the bill. The major changes are as follows:

1. A new short title, the "National Environmental Policy Act of 1969" has been added to the bill.

2. The statement of purpose has been revised to reflect amendments adopted by the committee.

3. A new title I which is designated "Declaration of National Environmental Policy," has been added. The new title consists of a congressional recognition of man's dependence upon the environment and a congressional declaration of Federal policy to use "all practicable means consistent with other essential considerations of national policy" to improve and coordinate all Federal activities to the end that certain broad national goals in the management of the environment may be attained. The broad national goals are set out in subsections 101(a)(1) through (6).

Section 101(b) provides a congressional recognition of each person's right to a healthful environment and of each person's responsibility to contribute to the enhancement of the environment.

Section 102 authorizes and directs that the policies, regulations, and public laws of the United States be interpreted and administered in

[2] A recent analysis conducted by the staff of the Senate Interior Committee showed that environmental programs are presently administered by 63 Federal agencies located within 10 of the 13 departments as well as 16 independent agencies of the executive branch.

accordance with the policies set forth in the act. This section also directs all Federal agencies to follow certain procedures and operating principles in carrying out their program activities. These procedures and operating principles are set out in subsections 102 (a) through (f). They authorize and direct the Federal agencies to utilize an interdisciplinary approach in planning and decision making; to develop procedures to insure that presently unquantified environmental values and amenities are given appropriate consideration; to include in legislative reports and recommendations for major Federal actions certain findings related to the environment; to develop appropriate alternatives to recommended courses of action involving unresolved environmental conflicts; to support appropriate activities designed to deal with international environmental problems; and to review and report upon present authority, policy, and procedures for conformity to the purposes of this act.

Section 102 provides that the policies and goals set forth in the act are supplemental to the existing mandates and authorizations of all Federal agencies.

4. Title I of S. 1075 as introduced, is now title II of S. 1075 as reported. As amended, title II authorizes all agencies of the Federal Government to conduct ecological research and surveys in conjunction with their existing programs and authorities. In S. 1075 as introduced, this authority was limited to the Secretary of the Interior. The express authority granted to the Federal agencies is set out in subsections 201 (a) through (g).

Section 202, as amended, authorizes the President to designate an agency or agencies to make grants, including training grants, to carry out the purposes of title II. In S. 1075, as introduced, this authority was granted to the Secretary of the Interior. The amendment reflects the committee's judgment that the President should have the authority to designate the lead agency or agencies to carry out the provisions of section 202. The committee added a limitation on the appropriation authorization in the amounts of $500,000 annually for fiscal years 1971 and 1972, and $1,000,000 for each year thereafter.

In recognition of the additional duties in the field of environmental administration which have been delegated to the Office of Science and Technology and to further the policies set forth in the act, section 203 authorizes the establishment of an additional position with the title "Deputy Director" in the Office of Science and Technology.

5. Title II of S. 1075, as introduced, was redesignated as title III of S. 1075 as reported. The name of the "Council" was changed to the "Board" of Environmental Quality Advisers. This change was made to avoid confusion with the interagency cabinet-level Council on Environmental Quality which the administration recently established by Executive order.

A new subsection 301(b) established the compensation to be paid members of the Board. A new subsection 302(d) provides that both the Board and the Office of Science and Technology shall carry out their duties under this act pursuant to the overall direction of the President. The committee also placed a limitation of $1 million on the annual appropriation authorization for the Board of Environmental Quality Advisers.

PURPOSE

The purpose of S. 1075, the National Environmental Policy Act of 1969, is to establish, by congressional action, a national policy to guide Federal activities which are involved with or related to the management of the environment or which have an impact on the quality of the environment.

Recent years have witnessed a growing public concern for the quality of the environment and the manner in which it is managed. The cause of this concern appears to be twofold: First, the evidence of environmental mismanagement is accumulating at an ever-increasing rate as a result of population growth, increased pressures on a finite resource base, and advancing technological developments which have enlarged man's capacity to effectuate environmental change. Second, the American people—as a result of growing affluence, more leisure time, and a recognition of the consequences of continuing many present environmental trends—are placing a much higher value on the quality of the environment and their surroundings than ever before.

The public's growing concern has figured prominently in many different areas of Federal activity. Most often it is seen in the form of citizen indignation and protest over the actions or, in some cases, the lack of action of Federal agencies. Examples of the rising public concern over the manner in which Federal policies and activities have contributed to environmental decay and degradation may be seen in the Santa Barbara oil well blowout; the current controversy over the lack of an assured water supply and the impact of a super-jet airport on the Everglades National Park; the proliferation of pesticides and other chemicals; the indiscriminate siting of steam fired powerplants and other units of heavy industry; the pollution of the Nation's rivers, bays, lakes, and estuaries; the loss of publicly owned seashores, open spaces, and other irreplaceable natural assets to industry, commercial users, and developers; rising levels of air pollution; federally sponsored or aided construction activities such as highways, airports, and other public works projects which proceed without reference to the desires and aspirations of local people.

S. 1075 is designed to deal with many of the basic causes of these increasingly troublesome and often critical problems of domestic policy. A primary purpose of the bill is to restore public confidence in the Federal Government's capacity to achieve important public purposes and objectives and at the same time to maintain and enhance the quality of the environment. It is the Committee's belief that S. 1075 will also provide a model and a demonstration to which State governments may look in their efforts to reorganize local institutions and to establish local policies conducive to sound environmental management. This objective is of great importance because many of the most serious environmental problems the Nation faces are within the scope and, often, within the exclusive jurisdiction of State action and State responsibility.

S. 1075 is also designed to deal with the long-range implications of many of the critical environmental problems which have caused great public concern in recent years. The challenge of environmental management is, in essence, a challenge of modern man to himself. The principal threats to the environment and the Nation's life support system are those that man has himself induced in the pursuit of material wealth,

greater productivity, and other important values. These threats—whether in the form of pollution, crowding, ugliness, or in some other form—were not achieved intentionally. They were the spinoff, the fallout, and the unanticipated consequences which resulted from the pursuit of narrower, more immediate goals.

The purpose of S. 1075 is, therefore, to establish a national policy designed to cope with environmental crisis, present or impending. The measure is designed to supplement existing, but narrow and fractionated, congressional declarations of environmental policy.

The "National Environmental Policy Act of 1969" would contribute to a more orderly, rational, and constructive Federal response to environmental decisionmaking in five major ways. These are briefly set out below:

1. Management of the environment is a matter of critical concern to all Americans. Virtually every agency of the Federal Government plays some role in determining how well the environment is managed. Yet, many of these agencies do not have a mandate, a body of law, or a set of policies to guide their actions which have an impact on the environment. In fact, the authorizing legislation of some agencies has been construed to prohibit the consideration of important environmental values.

Section 101 of S. 1075 rectifies this by providing a congressional declaration that it is the continuing policy and responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal planning and activities to the end that certain broad national goals in the management of the environment may be attained.

2. A statement of national policy for the environment—like other major policy declarations—is in large measure concerned with principle rather than detail; with an expression of broad national goals rather than narrow and specific procedures for implementation. But, if goals and principles are to be effective, they must be capable of being applied in action. S. 1075 thus incorporates certain "action-forcing" provisions and procedures which are designed to assure that all Federal agencies plan and work toward meeting the challenge of a better environment.

3. One of the major factors contributing to environmental abuse and deterioration is that actions—often actions having irreversible consequences—are undertaken without adequate consideration of, or knowledge about, their impact on the environment. Section 201 seeks to overcome this limitation by authorizing all agencies of the Federal Government, in conjunction with their existing programs and authorities, to conduct research, studies, and surveys related to ecological systems and the quality of the environment. This section also authorizes the agencies to make this information available to the public, to assist State and local government, and to utilize ecological information in the planning and development of resource-oriented projects.

Recognizing the leading role which the President has delegated to the Office of Science and Technology for the coordination of Federal activities in the area of environmental administration, the committee has adopted provisions designed to assist and strengthen this office.

The committee also authorizes the President to designate one or more lead agencies to carry out a grant program, to maintain an inventory of development projects which make significant environmental modifications, to establish a data collection system, and to assist State and local governments.

4. Title III establishes an independent, high-level, three-member Board of Environmental Quality Advisers in the Executive Office of the President. The Board is patterned very closely after the Council of Economic Advisers which was established by the Full Employment Act of 1946.

The Board's function is to provide a continuing study and analysis of environmental trends and the factors which affect these trends, and to relate each area of study and analysis to the social, economic, health, and conservation goals of the Nation. The Board will provide an overview of how effectively the Nation is maintaining a quality environment for future and present generations. In addition, it will be uniquely equipped to serve an early warning function by identifying emerging environmental problems at an early date so that proper responses may be prepared before situations reach crisis proportions and before the costs of dealing with problems grow large.

The Board would also strengthen the Office of the President by providing advice, assistance, and staff support on the formulation of national policies and other measures to improve the quality of the environment. In addition, the Board would assist the President in the preparation of an annual environmental quality report.

5. Section 303 requires the President to submit to the Congress an annual environmental quality report on the current status and condition of the major natural, manmade, and altered environmental systems of the Nation. In addition, the report is to identify current and foreseeable trends in quality, management, and the utilization of these environmental systems and the effects of these trends on the social, economic, and other requirements of the Nation.

At present, there is no report available which summarizes and brings together in one convenient place an authoritative and periodic statement on the status of the environment. Instead, there are hundreds of reports which deal with some small aspect of environmental management. More often than not these are technical in nature and do not provide meaningful measures of how well the Nation is meeting environmental goals and objectives. The annual report required by S. 1075 would provide a baseline and a periodic objective statement of national progress in achieving a quality environment for present and future generations of Americans.

BACKGROUND

Legislative history

S. 1075, the National Environmental Policy Act of 1969, was introduced in the 91st Congress on February 18, 1969, by Senator Jackson. Hearings on this and two related bills introduced by Senators Nelson (S. 1752) and McGovern (S. 237) were held on April 16, 1969,

before the full Committee on Interior and Insular Affairs. [3] Following a staff study and consultations with the staff of the Office of Science and Technology and with representatives of a number of the Federal departments, the committee considered S. 1075 in executive session on June 18, 1969. Following the adoption of a number of committee amendments, the measure was ordered reported to the Senate on June 18, 1969. At the request of the Director of the Office of Science and Technology and representatives of the Bureau of the Budget, the committee voted, on July 8, 1969, to reconsider the measure for the purpose of considering additional amendments. The amendments were proposed by the Bureau of the Budget in a July 7, 1969, letter to the chairman of the committee. The proposed amendments to titles I and II of S. 1075 were adopted. Amendments proposed to title III by the Bureau of the Budget were adopted in part and rejected in part. Following the adoption of other amendments suggested by members of the committee, the measure was ordered reported to the Senate on July 8, 1969.

S. 1075, as introduced, was substantially the same measure as S. 2805 which was introduced in the 90th Congress on December 15, 1967, by Senators Jackson and Kuchel. The far-reaching objectives of S. 2805 and similar legislation introduced in the 90th Congress by Members of both Houses were considered at a unique joint House-Senate colloquium convened by the chairmen of the Senate Committee on Interior and Insular Affairs and the House Committee on Science and Astronautics on July 17, 1968, to discuss a national policy for the environment.[4]

Many of the concepts and ideas incorporated in S. 1075 were drawn from ambitious measures introduced in previous Congresses. Of particular relevance were S. 2549, the Resources and Conservation Act, introduced by Senator Murray in 1959 and S. 2282 introduced by Senator Nelson in the 89th Congress. The Murray bill, endorsed by a distinguished group of Senators in the 86th and subsequently in the 87th Congress, called for the establishment of more efficient machinery in the President's Office to coordinate resource conservation on the

[3] National environmental policy, hearings held before the Committee on Interior and Insular Affairs, U.S. Senate, 91st Cong., first sess., on S. 1075, S. 1752, and S. 237, Apr. 10, 1969. S. 1752, as introduced by Senator Nelson, would create a five-member Council on Environmental Quality in the Office of the President. This Council would be responsible for assisting the President in preparing an annual environmental quality report which would be transmitted to Congress. The report would be reviewed by a Joint Committee on Environmental Quality. The measure would also authorize the Secretary of the Interior to conduct studies of the natural environment, evaluate and disseminate such information, and consult with and provide technical assistance to departments and agencies of the Government.

S. 237, as introduced by Senator McGovern, would require that the President transmit to the Congress an annual report on the state of the environment. The measure would also authorize the creation of a Council of Advisers on Resources, Conservation, and the Environment which would be in the Executive Office of the President. The three-member Council would assist the President in the preparation of the annual report and in developing and recommending national policies to maintain and improve the environment. For the purpose of consideration of the annual report and plan, this bill would establish in the Senate and the House, special committees to be known as the Select Committees on Resources, Conservation, and Environment.

[4] The proceedings were published under the title: "Joint House-Senate Colloquium To Discuss a National Policy for the Environment," hearing before the Committee on Interior and Insular Affairs, U.S. Senate, and the Committee on Science and Astronautics, U.S. House of Representatives, 90th Cong., 2d sess., July 17, 1968.

Following the colloquium, a "Congressional White Paper" was prepared at the request of Cochairman Henry M. Jackson and George Miller by the Legislative Reference Service, Library of Congress. This document, issued as a joint committee print by the Senate Interior Committee and House Science and Astronautics Committee and distributed to the entire Congress in October 1968, summarized the key points raised in the dialog between Members of the Congress and the colloquium participants which included five Cabinet Secretaries, the President's Science Adviser, Mr. Laurance Rockefeller, and Dean Don K. Price of Harvard.

A special report to the Committee on Interior and Insular Affairs on "A National Policy for the Environment" was prepared for the committee's use and was printed as a committee print on July 11, 1968. The report was prepared by Dr. Lynton K. Caldwell of Indiana University and William J. Van Ness, special counsel to the committee. The report was used as a background document for the colloquium. It raises and discusses in detail many of the issues and questions implicit in establishing a national environmental policy.

basis of national goals. The Nelson bill included broad provisions to cope with inadequate use and application by Federal agencies of ecological knowledge and research methods for attaining better management of our physical environment. Extensive hearings were held on each of these and other environmental measures before the Senate Interior Committee.[5]

Other concepts and ideas incorporated into S. 1075 were drawn from the proceedings of the previously mentioned joint House-Senate colloquium, from technical reports, conferences and symposia, and from books and journals dealing with environmental problems.[6]

In addition, the committee has reviewed and drawn upon concepts and ideas incorporated into many measures introduced in this and previous Congresses related to various aspects of environmental management.[7]

Need for the measure

This committee has compiled a great deal of testimony demonstrating instances of shortcomings, problems, and even national crises arising in many respects from the inadequacies of the Nation's environmental management policies and practices. Similar evidence has been compiled by other congressional committees and is a recurrent topic in the news media and in popular and technical publications.

Extensive collections of commentary regarding specific examples of environmental problems along with commentary by recognized spokesmen and authorities in the field have been published by this committee in the transcripts of the joint House-Senate colloquium to discuss a national policy for the environment (90th Cong., second sess.), in the hearing on a national environmental policy (91st Cong., first sess.), and elsewhere.[8] The latter document includes an appendix entitled "Bibliography on Environmental Issues," which lists numerous books, papers, articles, and other published material dealing with the critical problems of the environment.

It would be impracticable to attempt a summary of this voluminous data in this report. Drawing upon the testimony presented to this and other committees, however, the committee believes that the following basic propositions summarize the situation of contemporary America and the Federal Government regarding the management of the environment:

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[5] Proposed Resources and Conservation Act of 1960, hearings before the Committee on Interior and Insular Affairs, U.S. Senate, 86th Cong., second sess. on S. 2549, Jan. 25, 26, 28, and 29, 1960. Ecological Research and Surveys, hearings before the Committee on Interior and Insular Affairs, U.S. Senate, 89th Cong., second sess., April 27, 1966, on S. 2282.

[6] For a detailed listing of these documents see app. A, entitled "A Documentation on Environmental Problems," p. 25, in A National Policy for the Environment, committee print, Senate Interior and Insular Affairs Committee, July 11, 1968; see also the "Bibliography on Environmental Issues," pp. 192-204 in National Environmental Policy, hearing before the Committee on Interior and Insular Affairs, U.S. Senate, 91st Cong. on S. 1075, S. 237, and S. 1752, Apr. 16, 1969.

[7] In the closing days of the 90th Cong., the Legislative Reference Service tabulated over 100 bills which were directly concerned with environmental issues, covering a broad area of interest—cleaning up the Nation's rivers and better approaches to smog control, improving the use of open space and prevention of disorderly encroachment by superhighways, factories and other developments, improved protection of areas of high fertility, wiser application of pesticides, whose residues affect both man and wildlife, and the control of urban sprawl, unsightly junkyards, billboards, and power facilities that lower the amenities of landscape.

In the present Congress, an initial tabulation indicates that over 40 bills have been introduced which are concerned either with a national policy for the environment or the establishment of machinery to study the overall problems of the human environment. Of the 16 standing committees of the Senate, eight have broad jurisdiction of this type of legislation. Of the 21 House standing committees, 11 are similarly involved. See "A National Policy for the Environment," app. B, p. 29, committee print of the Senate Interior and Insular Affairs Committee, July 11, 1968; "Congressional White Paper on A National Policy for the Environment," app. p. 17, Senate Committee on Interior and Insular Affairs and the House Committee on Science and Astronautics, October 1968; and Legislative Reference Service Multilith, TP 460, SP 170 entitled "Environmental Quality: Selected Bills and Resolutions," June 20, 1969.

[8] See, for example, "Selected Excerpts on Environmental Management Policy," in the Congressional Record, Feb. 6, 1968, by Senator Jackson, and the committee publications cited in previous footnotes.

1. Population growth and increasing per capita material demands are placing unprecedented pressures upon a finite resource base.

2. Advancing scientific knowledge and technology have vastly enlarged man's ability to alter the physical environment.

3. The combination of the foregoing conditions presents a serious threat to the Nation's life support system. The pursuit of greater material wealth and increased productivity, the quest for scientific knowledge, and the requirements of worldwide responsibilities have had unplanned and often unforeseen consequences in the form of resource depletion, pollution, ill conceived urbanization, and other aspects of environmental degradation.

4. The attainment of effective national environmental management requires the Nation's endorsement of a set of resource management values which are in the long-range public interest and which merit the support of all social institutions. The Federal role will involve in some measure nearly every Federal agency. Successful Federal leadership in environmental management must be based upon the best possible information and analyses concerning the status and trends of environmental conditions. Federal action must rest upon a clear statement of the values and goals which we seek; in short, a national environmental policy.

There is no general agreement as to how critical the Nation's present environmental situation has become. Some respected scholars insist that a number of crises already exist. Others maintain that there is yet time to prevent them. There is nearly unanimous agreement, however, that action is needed and that, at least in some instances, dangerous conditions exist.

The Senate Interior and Insular Affairs Committee has not concluded that the complex environmental problems we face are susceptible of easy solution. It is however, clear that the Congress cannot disavow its responsibility to establish basic policies and to exercise supervisory powers over the agencies it has created. The Senate Committee on the Judiciary stated this responsibility clearly:

> Policymaking is not a function that can be performed properly by a small group of appointed officials, no matter how able or well intentioned. Only in Congress, where the Members are directly answerable to the electorate, can competing political interests be adequately represented and properly accommodated.

In gathering testimony on various aspects of national environmental policy over the past decade, the Senate Interior Committee has received broad support and encouragement from diverse segments of American society—from the scientific community, the universities, business and labor, and from public affairs groups. The committee believes that it is necessary to move ahead to define the "environmental" desires of the American people in operational terms that the President, Government agencies at all levels, the courts, private enterprise, and the public can consider and act upon.

RELATIONSHIP OF S. 1075 TO EXISTING POLICIES AND INSTITUTIONS

Existing policies

Congress over the past decade has passed a procession of landmark conservation measures on behalf of recreation and wilderness, national

recreational planning, national water planning and research, wilderness preservation, review of public land policies, establishment of a system of national trails and a system of national scenic rivers, air and water pollution control, noise abatement, preservation of endangered wildlife, urban planning for open space, oceanography, beautification of highways, protection of shorelines and estuaries, and other related areas. Many of these measures originated in the Senate Interior and Insular Affairs Committee.[9] Others originated in other committees of both the Senate and House. All of them, in specific and specialized ways, constitute congressional mandates on various aspects of environmental policy. Taken together, these measures provide an impressive record of congressional action and concern.

Nevertheless, on the basis of recent hearings, seminars, colloquia, and staff studies conducted by the committee, it is clear that there is very real reason for concern for those areas in which no policies have been established or in which the conflicting operational policies of different agencies are frustrating and complicating the achievement of environmental quality objectives which are in the interest of all. Many older operating agencies of the Federal Government, for example, do not at present have a mandate within the body of their enabling laws to allow them to give adequate attention to environmental values. In other agencies, especially when the expenditure of funds is involved, an official's latitude to deviate from narrow policies or the "most economical alternative" to achieve an environmental goal may be strictly circumscribed by congressional authorizations which have overlooked existing or potential environmental problems or the limitations of agency procedures. There is also reason for serious concern over the activities of those agencies which do not feel they have sufficient authority to undertake needed research and action to enhance, preserve, and maintain the qualitative side of the environment in connection with development activities.

S. 1075, as reported by the committee, would provide all agencies and all Federal officials with a legislative mandate and a responsibility to consider the consequences of their actions on the environment. This would be true of the licensing functions of independent agencies as well as the ongoing activities of the regular Federal agencies.

In addition, by providing a statement of national environmental goals, policies, and procedures, S. 1075 would give renewed and vigorous emphasis to the importance of existing environmental programs and legislation.

The problem of providing for better Federal environmental management practices is not totally caused by the lack of a policy. As noted earlier, there are many specific and specialized legislative policies on some aspects of the environment. The present problem also involves the need to rationalize and better coordinate existing policies and to provide means by which they may be continuously reviewed to determine whether they meet the overall goal of a quality life in a quality environment for all Americans.

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[9] See for example, "A Brief Presentation of the Committee's History and Jurisdiction, and A Summary of its Accomplishments During the 90th Congress," committee print, Committee on Interior and Insular Affairs, U.S. Senate, 90th Cong., 2d Sess.

See, also the existing legislation which affects coordination of Federal, air quality, water quality, solid waste disposal, and related public works projects cited in S. 2391, introduced by Senator Muskie and others on June 12, 1969.

Titles II and III of S. 1075 provide coordinating and oversight measures which are designed to insure that a coordinated Federal response to the problems of environmental management are prepared.

Existing Institutions

The Federal Government, at present, is not well structured for the administration of complex environmental issues or to offer meaningful alternatives to past methods of coping with environmental problems.[10] Compensatory measures have been sought through interagency agreements and understandings which require joint consultation and planning in specified cases of natural resources administration.[11]

While this represents an improvement in some areas of environmental administration and policymaking, the compensatory measures are more in the nature of palliatives than basic reforms, more in the nature of administrative statesmanship rather than basic policy determinations. In effect, they treat the symptoms rather than the basic problems.

Functions of oversight and assessment, insofar as they are presently fulfilled, are vested with a number of committees of the Congress and with the Bureau of the Budget. Budget's concern has proven to be more fiscal than policy oriented. The segmented committee structure of Congress, coupled with inadequate time and staff to survey the broad range of environmental quality problems, make it improbable that all of the committees of Congress will, or can be expected to, provide a continuous and informed substitute for legislation through which a comprehensive environmental public policy can be developed and applied.[12]

The present administration has recognized that dealing with complex environmental questions requires the establishment of a focal point for the consideration of environmental values within the Federal Government. On June 3, 1969, President Nixon established by Executive Order 11472 an interagency Environmental Quality Council to be composed of six Cabinet officers and to be chaired by himself. The Executive order also established a Citizens' Qdvisory Committee on Environmental Quality, revoked a number of prior Executive orders, and delegated certain staff functions to the Director of the Office of Science and Technology.

During the April 16 hearings on S. 1075, members of the Committee expressed approval of the announcement by the Secretary of the Interior and the President's science adviser of the President's intent to establish this interagency Council on the environment. There was general agreement that the Council could be effective in dealing with environmental problems which were of concern to more than one Department of the Federal Government and which required "action."

Many members of the Committee did, however, question whether an interagency council alone could provide the objective and impartial advice and adversary support the President needs in dealing with environmental problems.

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[10] This deficiency has been thoroughly discussed in two documents of the National Academy of Sciences: Paul Weiss, "Renewable Resources: A Report to the Committee on Natural Resources" (NAS-NRC Publ. No. 100A, 1962; "Resources and Man," NAS-NRC. (In press.) Also see Lynton K. Caldwell, "Administrative Possibilities for Environmental Control," in The Future Environments of North America (Natural History Press, 1966), and the hearings on S. 1075.

[11] The inadequacies of such compensatory measures are discussed in the following: Stephen K. Bailey, "Managing the Federal Government," in Agenda for the Nation, (Brookings Institution, 1968).

[12] This fundamental issue was fully discussed in the "Congressional White Paper on a National Policy for the Environment," op. cit.

Senator Jackson, in a dialog with Dr. DuBridge, noted that—

> * * * the advice, with all due respect, that the President would receive from the departments will be advice that will not be adverse to them. It will be compromised advice. This has been the history of the agencies. It is hard for the President to get objective advice. This is why the Bureau of the Budget plays such an important role. This is why your office [Office of Science and Technology] plays an important role. You have science in every department of the Government, and the President really needs to be armed with information with which he can effectively deal with the Cabinet departments. He needs to be armed with impartial advice, even advice of an adversary nature which will place the options for decision before the President.
>
> What I am concerned about, you see, is whether or not the President is going to be presented with a series of options that stem from an impartial source. This is casting no reflection on any department, but every Cabinet officer gets pressures right from the bottom on up.

Concern was also expressed by other members of the Committee over whether the President and the Cabinet officers involved would have the time and energy to provide the continuity of effort required. Concern was voiced over the level of staff support which the Office of Science and Technology would be able to make available to assist the President's Council.

Based upon a review of the strengths and weaknesses of both the President's Council and an independent board of environmental advisers as proposed in S. 1075, the Committee believes that both are needed. Their functions and activities as expressed in the Executive order and in title III of S. 1075 are not in conflict. They are complementary bodies: one action-oriented and composed of those Cabinet officers chiefly concerned with environmental matters, and the other providing objective and impartial advise as well as a long-range overview and problem identification function.

SUMMARY

Although historically the Nation has had no considered policy for its environment, the unprecedented pressures of population and the impact of science and technology make a policy necessary today. The expression "environmental quality" symbolizes the complex and interrelated aspects of man's dependence upon his environment. Most Americans now understand, far better than our forebears could the nature of man-environment relationships. The evidence requiring timely public action is clear. The Nation has in many areas overdrawn its bank account in life-sustaining natural elements. For these elements—air, water, soil, and living space—technology at present provides no substitutes. Past neglect and carelessness are now costing us dearly, not merely in opportunities forgone, in impairment of health, and in discomfort and inconvenience, but also in a demand upon tax dollars upon personal incomes, and upon corporate earnings The longer we delay meeting our environmental responsibilities, the longer the growing list of "interest charges" in environmental deteriora-

tion will run. The cost of remedial action and of getting on to a sound basis for the future will never again be less than it is today.[13]

Natural beauty, increased recreational opportunity, urban esthetics and other amenities would be important byproducts of a national environmental policy. They are worthy and important public objectives in their own right. But the compelling reasons for a national policy are more deeply based. The survival of man, in a world in which decency and dignity are possible, is the basic reason for bringing man's impact on his environment under informed and responsible control. The economic costs of maintaining a life-sustaining environment are unavoidable. We have not understood the necessity for respecting the limited capacities of nature in accommodating itself to man's exactions, nor have we properly calculated the cost of adaptation to deteriorating conditions. In our management of the environment we have exceeded its adaptive and recuperative powers, and in one form or another we must now pay directly the costs of maintaining air, water, soil, and living space in quantities and qualities sufficient to our needs. Economic good sense requires the declaration of a policy and the establishment of a comprehensive environmental quality program now. Today we have the option of channeling some of our wealth into the protection of our future. If we fail to do this in an adequate and timely manner, we may find ourselves confronted, even in this generation, with an environmental catastrophe that could render our wealth meaningless and which no amount of money could ever cure.

SECTION-BY-SECTION ANALYSIS

Section 1

This section provides that this act may be cited as the National Environmental Policy Act of 1969.

Section 2

This section sets forth the purposes of the act. The purposes of the act are to declare a national environmental policy; to promote efforts to prevent environmental damage and to better the health and welfare of man; to enlarge and enrich man's understanding of the ecological systems and natural resources important to the Nation; and to establish in the Executive Office of the President a Board of Environmental Quality Advisers.

TITLE I

Section 101(a)

This section is a declaration by the Congress of a national environmental policy. The declaration is based upon a congressional recognition of mankind's dependence upon his physical and biological surroundings for material goods and cultural enrichment. It is further based upon a recognition of the increasing pressures exerted upon the environment as a result of population growth, urbanization, industrial expansion, resource exploitation, and technological development.

The continuing policy and responsibility of the Federal Government is declared to be that, consistent with other essential considerations of national policy, the activities and resources of the Federal Government shall be improved and coordinated to the end that the Nation may

[13] For a discussion of the economic and social costs of continuing past environmental management practices see page 5, "A National Policy for the Environment," Committee Print, Senate Interior and Insular Affairs Committee, July 11, 1968.

attain certain broad national goals in the management of the environment. The broad national goals are as follows:

(1) Fulfill the responsibilities of each generation as trustee of the environment for future generations. It is recognized in this statement that each generation has a responsibility to improve, enhance, and maintain the quality of the environment to the greatest extent possible for the continued benefit of future generations.

(2) Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings. The Federal Government, in its planning and programs, shall strive to protect and improve the quality of each citizen's surroundings both in regard to the preservation of the natural environment as well as in the planning, design, and construction of manmade structures. Each individual should be assured of safe, healthful, and productive surroundings in which to live and work and should be afforded the maximum possible opportunity to derive physical, esthetic, and cultural satisfaction from his environs.

(3) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences. The resources of the United States must be capable of supporting the larger populations and the increased demands upon limited resources which are inevitable in the future. To do so, it is essential that the widest and most efficient use of the environment be made to provide both the necessities and the amenities of life. In seeking intensified beneficial utilization of the earth's resources, the Federal Government must take care to avoid degradation and misuse of resources, risk to man's continued health and safety, and other undesirable and unintended consequences.

(4) Preserve important historic, cultural, and natural aspects of our national heritage, and maintain wherever possible an environment which supports diversity and variety of individual choice. The pace of urbanization coupled with population growth and man's increasing ability to work unprecedented change in the natural environment makes it clear that one essential goal in a national environmental policy is the preservation of important aspects of our national heritage. There are existing programs which are designed to achieve these goals, but many are single-purpose in nature and most are viewed as being within the province of a particular agency of Government. This subsection would make it clear that all agencies, in all of their activities, are to carry out their programs with a full appreciation of the importance of maintaining important aspects of our national heritage.

This subsection also emphasizes that an important aspect of national environmental policy is the maintenance of physical surroundings which provide present and future generations of American people with the widest possible opportunities for diversity and variety of experience and choice in cultural pursuits, in recreational endeavors, in esthetics and in living styles.

(5) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities. This subsection recognizes that population increases underlie many of the resource and environmental problems which are being experienced in America. If the Nation's present high standards of living are to be made available to all of our citizens and if the general and growing desire of our people for greater participation in the

physical and material benefits, in the amenities, and in the esthetic enjoyment afforded by a quality environment are to be satisfied, the Federal Government must strive to maintain magnitude and distribution of population which will not exceed the environment's capability to provide such benefits.

(6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. In recent years a great deal of the emphasis of legislative and executive action regarding environmental matters has concentrated upon the protection and improvement of quality of the Nation's renewable resources such as air and water. It is vital that these efforts be continued and intensified because they are among the most visible, pressing, and immediate concerns of environmental management.

It is also essential that means be sought and utilized to improve the effectiveness of recycling of depletable resources such as fiber, chemicals, and metalic minerals. Improved material standards of living for greater numbers of people will place increased demands upon limited raw materials. Furthermore, the disposal of wastes from the nonconsumptive single use of manufactured goods is among our most critical pollution problems. Emphasis must be placed upon seeking innovative solutions through technology, management, and, if necessary, governmental regulation.

Section 101(b)

This subsection asserts congressional recognition of each person's fundamental and inalienable right to a healthful environment. It is apparent that the guarantee of the continued enjoyment of any individual right is dependent upon individual health and safety. It is further apparent that deprivation of an individual's right to a healthful environment will result in the degradation or elimination of all of his rights.

The subsection also asserts congressional recognition of each individual's responsibility to contribute to the preservation and enhancement of the environment. The enjoyment of individual rights requires respect and protection of the rights of others. The cumulative influence of each individual upon the environment is of such great significance that every effort to preserve environmental quality must depend upon the strong support and participation of the public.

Section 102

The policies and goals set forth in section 101 can be implemented if they are incorporated into the ongoing activities of the Federal Government in carrying out its other responsibilities to the public. In many areas of Federal action there is no body of experience or precedent for substantial and consistent consideration of environmental factors in decisionmaking. In some areas of Federal activity, existing legislation does not provide clear authority for the consideration of environmental factors which conflict with other objectives.

To remedy present shortcomings in the legislative foundation of existing programs, and to establish action-forcing procedures which will help to insure that the policies enunciated in section 101 are implemented, section 102 authorizes and directs that the existing body of Federal law, regulation, and policy be interpreted and administered to the fullest extent possible in accordance with the policies set forth

in this act. It further establishes a number of operating procedures to be followed by all Federal agencies as follows:

(a) Wherever planning is done or decisions are made which may have an impact on the quality of man's environment, the responsible agency or agencies are directed to utilize to the fullest extent possible a systematic, interdisciplinary, team approach. Such planning and decisions should draw upon the broadest possible range of social and natural scientific knowledge and design arts. Many of the environmental controversies of recent years have, in large measure, been caused by the failure to consider all relevant points of view in the planning and conduct of Federal activities. Using an interdisciplinary approach that brought together the skills of the landscape architect, the engineer, the ecologist, the economist, and other relevant disciplines would result in better planning and better projects. Too often planning is the exclusive province of the engineer and cost analyst.

(b) All agencies which undertake activities relating to environmental values, particularly those values relating to amenities and aesthetic considerations, are authorized and directed to make efforts to develop methods and procedures to incorporate those values in official planning and decisionmaking. In the past, environmental factors have frequently been ignored and omitted from consideration in the early stages of planning because of the difficulty of evaluating them in comparison with economic and technical factors. As a result, unless the results of planning are radically revised at the policy level—and this often means the Congress—environmental enhancement opportunities may be forgone and unnecessary degradation incurred. A vital requisite of environmental management is the development of adequate methodology for evaluating the full environmental impacts and the full costs of Federal actions.

(c) Each agency which proposes any major actions, such as project proposals, proposals for new legislation, regulations, policy statements, or expansion or revision of ongoing programs, shall make a determination as to whether the proposal would have a significant effect upon the quality of the human environment. If the proposal is considered to have such an effect, then the recommendation or report supporting the proposal must include statements by the responsible official of certain findings as follows:

(i) A finding shall be made that the environmental impact of the proposed action has been studied and that the results of the studies have been given consideration in the decisions leading to the proposal.

(ii) Wherever adverse environmental effects are found to be involved, a finding must be made that those effects cannot be avoided by following reasonable alternatives which will achieve the intended purposes of the proposal. Furthermore, a finding must be made that the action leading to the adverse environmental effects is justified by other considerations of national policy and those other considerations must be stated in the finding.

(iii) Wherever local, short-term uses of the resources of man's environment are being proposed, a finding must be made that such uses are consistent with the maintenance and enhancement of the long-term productivity of the environment.

(iv) Wherever proposals involve significant commitments of resources and those commitments are irreversible and irretrievable under conditions of known technology and reasonable economics, a finding must be made that such commitments are warranted.

(d) Wherever agencies of the Federal Government recommend courses of action which are known to involve unresolved conflicts over competing and incompatible uses of land, water, or air resources, it shall be the agency's responsibility to study, develop, and describe appropriate alternatives to the recommended course of action. The agency shall develop information and provide descriptions of the alternatives in adequate detail for subsequent reviewers and decisionmakers, both within the executive branch and in the Congress, to consider the alternatives along with the principal recommendation.

(e) In recognition of the fact that environmental problems are not confined by political boundaries, all agencies of the Federal Government which have international responsibilities are authorized and directed to lend support to appropriate international efforts to anticipate and prevent a decline in the quality of the worldwide environment.

(f) All agencies of the Federal Government are directed to review their existing statutory authority, administrative regulations, policies, and procedures. The agencies are to propose to the President and to the Congress new executive or legislative authority which they find to be necessary to make their authority consistent with the provisions and purposes of this act.

The committee expects that each agency will diligently pursue this review and that appropriate legislative recommendations will be prepared for presentation to the Congress within 1 year's time. The committee recognizes, however, that there is a wide difference in the complexity of legislation dealing with the activities of the various executive agencies and that a specific deadline might prove unreasonably burdensome on some agencies.

Section 103

This section provides that the policies and goals set forth in this act are supplementary to the existing mandates and authorizations of Federal agencies. They are not considered to repeal the existing authorizations. Where conflicts occur, they will be resolved under the procedure prescribed in section 102(f).

TITLE II

Section 201

This section provides authorization for the Federal agencies to include, as a part of their existing programs and their ongoing activities, certain environmental management functions which will be necessary to support the policies established by this act. No specific authorization of appropriations is provided for these activities. The committee believes that the agencies can perform the functions authorized as a part of the general administration and operation of their existing programs. To the extent that agencies are pursuing activities with environmental management implications, the costs of the functions authorized in this section are appropriate costs of their work. The functions authorized for each Federal agency are as follows:

(*a*) To conduct investigations and research relating to ecological systems and environmental quality. It is intended that such activities will be undertaken by each agency when its activities would have an adverse impact on an ecological system or on the quality of the environment.

(*b*) To collect and document information relating to changes or trends in environmental conditions including ecological systems. It is intended that each agency perform this function in its area of expertise and operation.

(*c*) To evaluate and publish environmental and ecological data which it has collected.

(*d*) To make available advice and information at its disposal relating to environmental management.

(*e*) To utilize ecological information in the planning and development of resource-oriented projects. Each agency which studies, proposes, constructs, or operates projects having resource management implications is authorized and directed to consider the effects upon ecological systems to be a part of the analyses governing its actions and to study such effects as a part of its data collection.

(*f*) To conduct ecological research and studies within the Federal lands under its jurisdiction.

(*g*) To assist to the fullest extent possible the Board of Environmental Quality Advisers established by this act and any environmental council or committee established by the President.

Section 202(a)

This section authorizes the President to designate an agency or agencies to carry out the following functions regarding environmental management:

(1) Administer a program of grants, contracts and cooperative agreements, training and research to further the programs of ecological study authorized by title II and to accept and utilize donations for this purpose.

(2) Develop and maintain an inventory of Federal projects and programs, existing and contemplated, which have made or will make significant modifications in the environment.

(3) Establish an information collection and retrieval system for ecological research materials.

(4) Assist and advise State and local governments and private enterprise in developing policies and procedures to enhance the quality of the environment.

Section 202(b)

Appropriations in the amounts of $500,000 annually for fiscal years 1971 and 1972 and $1 million annually for 1973 and each fiscal year thereafter are authorized for the purposes of this section. The funds appropriated would be allotted to the designated agencies as the President recommends.

Section 203

This section establishes in the Office of Science and Technology an additional Deputy Director to be compensated at the rate provided for level IV of the executive schedule pay rates.

The Office of Science and Technology (OST) was established by Reorganization Plan No. 2 of 1962 to provide a permanent staff in

the Executive Office of the President to advise and assist the President on matters pertaining to or affected by science and technology. It is also directed to take on such other assignments as the President may request. The Director of OST, appointed by the President with the advice and consent of the Senate, also serves as the science adviser to the President.

Since it was provided statutory authority in 1962, the OST has broadened the range and scope of its activities extending beyond the province of research or policy for science and technology to the interrelations of science to broad national policies and programs. In this sense, the OST is concerned with assuring the most effective and beneficial use of technology in our society.

Thus, the OST deals with broad problems facing the country in health, education, the urban environment, energy policy and environmental quality.

The President's recent Executive order establishing an Environmental Quality Council directed the OST to provide the staff support and assistance to the work of the Council. The President's science adviser was named Executive Secretary of the Council.

In view of the importance of environmental management problems and the important role which the President's Council will have in resolving interagency conflict concerning environmental issues, and in coordinating the ongoing environmental programs of the Federal Government, a significant increase is expected in the already demanding work load of the OST.

The committee feels that the addition of a second Deputy Director as recommended by the Bureau of the Budget in its July 7, 1969 letter to the chairman, will be of great value in strengthening OST's capacity to contribute to effective environmental management.

TITLE III

Section 301(a)

This subsection creates in the Executive Office of the President a Board of Environmental Quality Advisers. The Board is to be composed of three members appointed by the President with the advice and consent of the Senate and who shall serve at the President's pleasure.

It is intended that the members of the Board shall be persons of broad experience and training with the competence and judgment to analyze and interpret trends and developing problems in the quality of the Nation's environment. The committee does not view the Board's functions as a purely scientific pursuit, but rather as one which rests upon scientific, economic, social, esthetic, and cultural considerations. The members of the Board, therefore, should not necessarily be selected for depth of training or expertise in any specific discipline, but rather for their ability to grasp broad national issues, to render public service in the national interest, and to appreciate the significance of choosing among present alternatives in shaping the country's future environment.

The President shall designate one member of the Board as Chairman and one as Vice Chairman.

Section 301(b)

This subsection provides that the members of the Board shall serve full time. The compensation for the Chairman of the Board is set at

level II of the Executive Schedule pay rates and at level IV for the other two members. These provisions parallel the compensation provisions established by law for the Chairman and the members of the Council of Economic Advisers.

Section 302(a)

The primary function of the Board shall be to carry on continuing studies and analyses related to the status of the environment. The Board will seek to establish or cause to be established within the operating agencies of the Federal Government an effective system for monitoring environmental indicators, collecting data, and analyzing trends. It will further seek to relate trends in environmental conditions to short- and long-term national goals and aspirations.

In carrying out this function, the Board is required to perform a number of specified duties.

First, the Board is required to report at least once each year to the President on the state and condition of the environment. This report should represent the Board's considered and impartial judgement. The Board's report would be useful to the President in the preparation of the annual environmental quality report which the President is required to transmit to the Congress by section 303.

Second, the Board would provide advice, assistance, and staff support to the President in the formulation of national policies designed to foster and promote the improvement of the quality of the environment. The President is, of course, free to utilize the services of the Board in any manner in which he desires. The committee hopes, however, that the President would rely on the Board's impartial and objective advice in the formulation of national environmental policies.

Third, the Board is authorized to obtain information from all existing sources concerning the quality of the environment. The committee intends and fully expects that all Federal agencies will cooperate and provide any assistance and information necessary to enable the Board to fulfill its duties and responsibilities under this act. The Board is also directed to make information concerning the quality of the environment available to the American people. It is the committee's strong view that there needs to be some one place in Government to which the public and the news media may turn for authoritative and objective information on particular environmental problems. A current example of the need relates to the controversy over the impact of certain chemicals, pesticides, and insecticides. Many news reports and the opinions of many competent scientists indicate that some present practices in the use and application of these substances pose grave health dangers. The extent of the danger, however, is often minimized and, in some cases, even denied by the responsible Government agencies. The Board could provide a useful and needed public function by reviewing all of the facts and furnishing competent judgment and advice on problems of this nature.

Section 302(b)

This subsection provides that the Board shall periodically review and appraise Federal programs, projects, activities, and policies which affect the quality of the environment. Based upon its review, the Board shall make recommendations to the President.

The committee does not view this direction to the Board as implying a project-by-project review and commentary on Federal pro-

grams. Rather, it is intended that the Board will periodically examine the general direction and impact of Federal programs in relation to environmental trends and problems and recommend general changes in direction or supplementation of such programs when they appear to be appropriate.

It is not the committee's intent that the Board be involved in the day-to-day decisionmaking processes of the Federal Government or that it be involved in the resolution of particular conflicts between agencies and departments. These functions can best be performed by the Bureau of the Budget, the President's interagency Cabinet-level Council on the Environment or by the President himself. The committee does, however, strongly feel that the President needs impartial and objective staff support which can provide him with unbiased information and an accurate overview of the Nation's environmental trends and problems and how these trends and problems affect the future material and social well-being of the American people.

The Board's recommendations to the President are for his use alone, and his actions on their recommendations will depend on the confidence he places in the judgment of the persons he nominates to membership on the Board. Used properly, the Board's review and appraisal of Federal activities which affect the quality of the environment can add a new dimension and provide the President with a new insight into the long-range needs and priorities of the country. At the present time, the executive agencies' view of National needs, goals, and priorities in the field of environmental management appears to have been so thoroughly subjugated to budgetary and fiscal considerations that the nature of the fundamental values at stake has been obscured. It is the committee's view that the values which are at stake in the environmental management decisions which lie ahead need to be brought to the fore and made the subject of official decision at the highest levels of Government.

Section 302(c)

This subsection states that the Board will assist the President in the preparation of the annual environmental quality report required by section 303. The committee assumes that the Board would have the primary responsibility for the preparation of the President's annual report. It could, in large measure, be based upon the Board's report to the President required by section 302(a)(1).

Section 302(d)

This section provides that both the Board of Environmental Quality Advisers and the Office of Science and Technology shall carry out their duties under the provisions of this act at the direction of the President. This provision was not a part of S. 1075 as introduced, but was added as a committee amendment to make it clear that the duties and functions assigned to the Board and the Office of Science and Technology are to be carried out at the direction of the President as is true with regard to the other offices and bodies in the Executive office of the President. This provision will avoid any problems of duplication, coordination, and overlap which otherwise might subsequently arise between the activities of the Board and those of other offices or agencies.

The committee feels that this provision will enlarge the President's flexibility in organizing his staff and will enhance the overall policy-making capacity of the Executive office.

Section 303

This section provides that the President shall transmit to the Congress an annual environmental quality report. The first such report shall be transmitted on or before June 30, 1970. Subsequent reports shall be transmitted on or before June 30 in succeeding years.

The report is to include, but not be limited to, a current evaluation of the status and condition of the major environmental classes of the Nation. To the greatest extent possible, this information should be based upon measurements of environmental indicators relating quality and supply of land, water, air, and depletable resources to other factors such as environmental health, population distribution, and demands upon the environment for amenities such as outdoor recreation and wilderness. Significant current and developing environmental problems should be highlighted. Current and foreseeable environmental trends and evaluations of the effects of those trends upon the Nation's future social, economic, physical, and other requirements should be discussed.

It is the committee's strong view that the President's annual report should provide a considered statement of national environmental objectives, trends and problems. The report should provide the best judgment of the best people available on the Nation's environmental problems and the progress being made toward providing a quality environment for all Americans.

The report should summarize and bring together the major conclusions of the technical reports of other Federal agencies concerned with environmental management. Too often, these reports go unread and unevaluated. A succinct, readable summary and evaluation would be of great assistance to the Congress and the President.

It is anticipated that the annual report and the recommendations made by the President would be the vehicle for oversight hearings and hearings by the appropriate legislative committees of the Congress. It would also appear to be desirable to hear the views of the Board of Environmental Quality Advisers at an annual session similar to that now conducted by the Joint Economic Committee with the Council of Economic Advisers.

Section 304

This section provides that the Board may employ a professional and support staff and may acquire the services of experts and consultants. The committee intends that the Board should have available a professional staff comparable in size and qualifications to the staff which currently services the Council of Economic Advisers. The staff members, like the members of the Board, should represent many disciplines and professions. They should be broad-gaged people who are capable of furnishing the Board with a balanced and knowledgeable overview of the state of the Nation's environment.

Section 305

This section authorizes appropriations in the amount of $1 million annually to cover the salaries and operating expenses of the Board.

The committee chose the $1 million ceiling because it is comparable to the appropriations which have been required over the past several years for the Council of Economic Advisers.

COMMITTEE RECOMMENDATIONS

The Interior and Insular Affairs Committee after long and careful consideration, unanimously recommends that S. 1075, as amended, be enacted.

EXECUTIVE COMMUNICATIONS

On July 7, the Interior Committee received communications from the Bureau of the Budget on the amended version of S. 1075 which was unanimously reported out of committee on June 18. The full text of this communication, together with a marked-up copy of S. 1075 which includes the Bureau's suggested amendments, is set forth in full below.

Additional communications from the Bureau of the Budget dated June 14, 1969 as well as the Office of Science and Technology dated May 29, 1969 are also set forth in full. These communications were received subsequent to the inclusion of a national environemental policy statement in S. 1075, following the April 16 hearing on this measure.

Further communications from the Bureau of the Budget, the National Science Foundation, and the Departments of Interior, Agriculture, State, and Health, Education, and Welfare, on S. 1075, prior to amendment, are also set forth in full.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., July 7, 1969.

Hon. HENRY M. JACKSON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR JACKSON: We have reviewed carefully the provisions of your bill, S. 1075, which are designed to strengthen Federal capabilities to respond to problems of environmental quality.

The President certainly shares the concern of the Congress and the public as to the need for improved environmental management. The President's serious concern over the problems of environmental quality is reflected in his establishment by Executive Order 11472 of the Environmental Quality Council and the Citizens' Advisory Committee on Environmental Quality. He has assigned to the Office of Science and Technology the responsibility for providing advice, assistance, and staff support to the President and the Environmental Quality Council. He has further directed that the Office of Science and Technology be strengthened to provide the diverse professioual capabilities needed for objective assessments of a wide range of environmental quality problems. This staff capability in the Executive Office of the President is to provide for assessing environmental problems, analyzing long term trends in the environment, evaluating the adequacy of Federal programs, and assuring that environmental considerations are adequately taken into account in proposed Federal programs and actions.

Establishment of the Environmental Quality Council, chaired by the President, assures the highest possible level of attention of departments and agencies to problems of the environment and provides the framework within which to improve coordination among agencies in their environmental programs.

Establishment of the Citizens' Advisory Committee provides a clear channel for getting independent information and advice from the non-Government community and for relationships with the many voluntary organizations that have an interest and stake in the improved management of the environment. In addition, the assignment of responsibility to the Office of Science and Technology provides a ready access through the President's Science Advisory Committee to many experts in a variety of fields in the universities, industry, and other sectors who can assist in addressing environmental problems.

S. 1075 as amended would establish a national environmental policy, authorize studies and research related to environmental quality, require an annual report from the President, and establish a Board of Environmental Quality Advisers in the Executive Office of the President. With respect to the policy statement, Mr. Hughes' June 13, 1969, letter noted that there is already a large body of policy with respect to the environment, that a comprehensive statutory statement of policy in this area could be helpful to the President and the Environmental Quality Council, and that the Council will take up the question of a national policy at one of its earliest meetings. The proposed statement in title II of general functions that operating agencies are authorized to carry out with respect to the environment appears to be a useful reaffirmation of authorizations in this important area. An annual report on the environment, along the lines provided for in title III, would appear to be a useful periodic assessment of important problems which could be made available to the Congress and the public. We believe a number of changes should be made in titles I and II. The attachment reflects the changes that appear to be essential if legislation along the lines of S. 1075 is to be enacted at this time.

With respect to title III we believe that establishment of the proposed Board of Environmental Quality Advisers would be undesirable Such action would further complicate the organization and functioning of the Executive Office of the President. Furthermore, the establishment in the Federal Government of an additional body to deal with overall environmental problems would diffuse responsibility rather than provide the sharp focus now required and now provided for in the President's actions. These actions represent the President's best judgment as to the mechanisms that are required at this point in time for addressing environmental problems. It is recognized that additional changes may be required after there has been experience with the newly established mechanisms.

If the Congress wishes to legislate in support of these actions we would have no objection to providing a statutory basis for assignment of appropriate responsibilities to the Office of Science and Technology. This action could be accompanied by provision of an additional position of a presidentially appointed Deputy Director in OST who could devote full time to environmental quality problems if the committee deemed it useful. These steps would make very clear congressional support for the President's action while, at the same time, avoiding the undesirable consequences of establishing a new organization.

It should be emphasized that the arrangements established by the President are designed to preserve the flexibility in the organization and staffing of the Executive Office that is necessary if the President is to have an opportunity to use the resources available to him for effective action. As you are well aware, this basic principle with respect to organization of the Executive Office has been endorsed by knowledgeable and thoughtful persons in the Congress and elsewhere.

The attached copy of S. 1075 has been marked up to reflect the essential changes discussed above. If the bill were modified in this way, we believe it could provide useful assistance for the President.

Sincerely,

ROBERT P. MAYO, *Director.*

Enclosure.

[Bureau of the Budget suggested additions are printed in italic; deletions in brackets]

A BILL To authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SEC. 1. That this Act may be cited as the "National Environmental Policy Act of 1969".

PURPOSE

SEC. 2. The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Board of Environmental Quality Advisers.

TITLE I

DECLARATION OF NATIONAL ENVIRONMENTAL POLICY

SEC. 101. (a) The Congress, recognizing that man depends on his biological and physical surroundings for food, shelter, and other needs, and for cultural enrichment as well; and recognizing further the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances on our physical and biological surroundings, and on the quality of life available to the American people; hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may-

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(b) The Congress recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

SEC. 102. The Congress authorizes and directs that the policies, regulations, and public laws of the United States *to the fullest extent possible*, be interpreted and administered in accordance with the policies set forth in this Act, and that all agencies of the Federal Government—

(a) utilize to the fullest extent possible a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(b) identify and develop methods and procedures which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(c) include in every recommendation or report on proposals for legislation [or] *and* other [significant] *major* Federal actions *significantly* affecting the quality of the human environment, a finding by the responsible official that—

(i) the environmental impact of the proposed action has been studied and considered;

(ii) any adverse environmental effects which cannot be avoided by following reasonable alternatives are justified by other stated considerations of national policy;

(iii) local short-term uses of man's environment are consistent with maintaining and enhancing long-term productivity; and that

(iv) any irreversible and irretrievable commitments of resources are warranted.

(d) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of land, water, or air;

(e) recognize the worldwide and long-range character of environmental problems and lend appropriate support to initia-

tives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment; and

(f) review present statutory authority, administrative regulations, and current policies and procedures for conformity to the purposes and provisions of this Act and propose to the President and to the Congress [within one year after the date of enactment] such measures as may be necessary to make their authority consistent with this Act.

SEC. 103. The policies and goals set forth in this Act are supplementary to, but shall not be considered to repeal the existing mandates and authorizations of Federal agencies.

TITLE II

SEC. 201. To carry out the purposes of this Act, all agencies of the Federal Government in conjunction with their existing programs and authorities, are hereby authorized—

(a) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality;

(b) to document and define changes in the natural environment, including the plant and animal systems, and to accumulate necessary data and other information for a continuing analysis of these changes or trends and an interpretation of their underlying causes;

(c) to evaluate and disseminate information of an ecological nature to public and private agencies or organizations, or individuals in the form of reports, publications, atlases, and maps;

(d) to make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(e) to initiate and utilize ecological information in the planning and development of resource-oriented projects;

(f) to conduct research and studies within natural areas under Federal ownership which are under the jurisdiction of the Federal agencies; and

(g) to assist [the Board of Environmental Quality Advisors established under title III of this Act and] any council or committee established by the President to deal with environmental problems.

SEC. 202. In carrying out the provisions of this title, the [Secretaries of Interior and Agriculture are empowered to] *President is authorized to designate an agency or agencies to*—

(a) make grants, including training grants, and enter into contracts or cooperative agreements with public or private agencies or organizations, or individuals, and to accept and use donations of funds, property, personal services, or facilities to carry out the purposes of this Act.

[(b) There are hereby authorized to be appropriated $500,000 annually for fiscal years 1971 and 1972, and $1,000,000 for each fiscal year thereafter.

[SEC. 203. The Director of the Office of Science and Technology (hereinafter referred to as the "Director") in order to carry out the purposes of this title, is authorized and directed—

[(a) to review, appraise, and coordinate the investigations, studies, surveys, and research relating to ecological systems and environmental quality carried on by agencies of the Federal Government;]

(b) to develop and maintain an inventory of existing and future natural resource development projects, engineering works, and other major projects and programs contemplated or planned by public or private agencies or organizations which make significant modifications in the natural environment;

(c) to establish a system of collecting and receiving information and data on ecological research and evaluations which are in progress or are planned by other public or private agencies or organizations, or individuals; and

(d) to assist and advise State and local government, and private enterprise in bringing their activities into conformity with the purposes of this Act and other Acts designed to enhance the quality of the environment.

[SEC. 204. The Director shall consult with and provide technical assistance to other Federal agencies, and he is authorized to obtain from such departments and agencies such information, data, reports, advice, and assistance as he deems necessary or appropriate and which can reasonably be furnished by such departments and agencies in carrying out the purposes of this Act. Any Federal agency furnishing advice or assistance hereunder may expend its own funds for such purposes, with or without reimbursement by the Director.]

SEC. 203. There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this title.

[TITLE III

[SEC. 301. There is created in the Executive Office of the President a Board of Environmental Quality Advisers (hereinafter referred to as the "Board"). The Board shall be composed of three members who shall be appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate. Each member shall, as a result of training, experience, or attainments, be professionally qualified to analyze and interpret environmental trends of all kinds and descriptions and shall be conscious of and responsive to the scientific, economic, social, esthetic, and cultural needs and interest of this Nation. The President shall designate the Chairman and Vice Chairman of the Board from such members.

[SEC. 302. (a) The primary function of the Board shall be to study and analyze environmental trends and the factors that effect these trends, relating each area of study and analysis to the conservation, social, economic, and health goals of this Nation. In carrying out this function, the Board shall—

[(1) report at least once each year to the President on the state and condition of the environment;

[(2) provide advice, assistance, and staff support to the President on the formulation of national policies to foster and promote the improvement of environmental quality;

[(3) obtain information using existing sources, to the greatest extent practicable, concerning the quality of the environment and make such information available to the public.

[(b) The Board shall periodically review and appraise Federal programs, projects, activities, and policies which affect the quality of the environment and make recommendations thereon to the President.

[(c) It shall be the duty and function of the Board to assist and advise the President in the preparation of the annual environmental quality report required under section 303.

[SEC. 303. The President shall transmit to the Congress, beginning June 30, 1970, an annual environmental quality report which shall set forth: (a) the status and condition of the major natural, manmade, or altered environmental classes of the Nation; and (b) current and foreseeable trends in quality, management, and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation.

[SEC. 304. The Board may employ such officers and employees as may be necessary to carry out its functions under this Act. In addition, the Board may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its functions under this Act, in accordance with section 3109 of title 5, United States Code (but without regard to the last sentence thereof).

[SEC. 305. There are hereby authorized to be appropriated $1,000,000 annually to carry out the purposes of this title.

[Amend the title so as to read: "A bill to establish a national policy for the environment; to authorize studies, surveys, and research relating to ecological systems, natural resources, and the quality of the human environment; and to establish a Board of Environmental Quality Advisers."]

TITLE III

STRENGTHENING THE OFFICE OF SCIENCE AND TECHNOLOGY

SEC. 301. The Director of the Office of Science and Technology (hereinafter referred to as the "Director"), in order to carry out the purposes of this Act, is authorized and directed to advise and assist the President—

(a) in the formulation of national policies to foster and promote the improvement of environmental quality;

(b) in the review, appraisal, and coordination of investigations, studies, surveys, and research relating to ecological systems and environmental quality carried on by agencies of the Federal Government;

(c) in the review and appraisal of Federal programs, projects, activities, and policies which affect the quality of the environment;

(d) in the study and analysis of environmental trends, and the factors that effect those trends, in relation to conservation, social, economic, and health goals of the Nation;

(e) in the preparation of the annual environmental quality report required under section 401.

SEC. 302. The Director shall consult with other Federal agencies, and he is authorized to obtain from such departments and agencies such information, data, reports, advice, and assistance as he deems necessary or appropriate and which can reasonably be furnished by such departments and agencies in carrying out the purposes of this Act. Any Federal agency furnishing advice or assistance hereunder may expend its own funds for such purposes, with or without reimbursement.

SEC. 303. There is hereby established in the Office of Science and Technology an additional office with the title "Deputy Director of the Office of Science and Technology." That Deputy Director shall be appointed by the President by and with the advice and consent of the Senate, shall, perform such duties as the Director of the Office of Science and Technology shall from time to time direct, and shall be compensated at the rate provided for Level IV of the Executive Schedule Pay Rates (5 U.S.C. 5315).

SEC. 304. There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this title.

TITLE IV

ANNUAL REPORT

SEC. 401. The President shall transmit to the Congress, beginning June 30, 1970, an annual environmental quality report which shall include: (a) the status and condition of the natural and manmade environment; and (b) current and foreseeable trends in quality, management, and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF SCIENCE AND TECHNOLOGY,
Washington, D.C., May 29, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: This responds to your request for my views on an explicitly stated national policy on the environment. As I stated at your April 16, 1969, hearing, I do believe such a policy statement would be useful.

I compliment you and your committee on your deep interest and initiative in undertaking to provide a viable national policy on the environment. I am mindful that there is already a large body of policy dealing with the environment, not only in acts of the Congress, but also in administrative guides, and regulations within the executive branch. This policy, though it does not exist in any one place, is nonetheless real. Nevertheless, it is not cohesive.

As I understand it, your proposed bill codifies and consolidates these separate policy statements. This would be a most useful and significant step. Even more importantly, the policy statement would be a tangible means through which the Congress can give form to its deep interest in the subject and thus lend support to the work of the Presidential Council.

It was a pleasure to appear before your committee last month, and I look forward to continued cooperation with you in a coordinated effort with other Members of Congress in providing the most effective means to improve our environment.

Sincerely yours,

LEE A. DUBRIDGE, *Director.*

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., June 14, 1969.

Hon. HENRY M. JACKSON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR JACKSON: This is in response to a recent informal request from a member of your staff for the views of the Bureau of the Budget concerning the amendment you offered on May 29, 1969, to your bill S. 1075, to authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality.

Your proposed amendment would set out a comprehensive statement of national policy on the environment. We join in supporting the general objectives of this proposed policy which are in accord with the aims expressed by the President in creating the new Environmental Quality Council.

As noted in Dr. DuBridge's letter to you of May 29, 1969, there is already a large body of statutory and administrative policy aimed at protecting our environment. However, Dr. DuBridge's letter went on to state, and we agree, that a comprehensive statutory statement of national policy on the environment would be useful and significant and support the work of the President's Council.

As a statement of guiding principles, a comprehensive national policy on the environment will, of course, be of basic concern to the Council. In this connection, for example, Executive Order No. 11472 establishing the Council states that one of its major functions will be to recommend measures to insure that Federal policies and programs, including those for development and conservation of natural resources, take adequate account of environmental effects.

I have been assured by Dr. DuBridge, who as you know, is Executive Secretary of the Council, that the Council will take up the whole question of a national policy for the environment at one of its earliest meetings. I am sure your policy statement will be a major basis for this consideration.

I would like to take this opportunity to express our appreciation for the efforts which you and your committee have made toward the goal of environmental protection that is of such deep concern to this administration as well.

Sincerely,

PHILLIP S. HUGHES,
Deputy Director.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., April 15, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs, U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: Your committee has requested this Department's report on two similar bills, S. 1075 and S. 1752.

While we favor the objectives of these bills, we do not recommend their favorable consideration in view of President Nixon's announced intention to establish an interdepartmental Environmental Quality Council.

Both bills would establish in the Office of the President an environmental council composed of members appointed by the President with the advice and consent of the Senate to advise the President on environmental problems. In addition, both bills would authorize the Secretary of the Interior to undertake two major groups of programs relating to the environment.

First, Interior would prepare surveys and document and define changes in the natural environment and receive and maintain data on ecological research. These are enormous tasks requiring much time and money. While effort in this direction is needed, a much clearer description of objectives should be developed before we attempt to legislate a program in this area.

Second, under the bills, Interior would encourage public and private agencies to utilize the ecological data which it develops. Public works projects which affect the environment are carried out by many agencies. Yet the bills are not specific on how Interior would comment on those projects. If Interior must depend on other agencies coming to it, it is doubtful that many will. If Interior should volunteer its comments, it may well be viewed as an interloper by other agencies and by those who benefit from the projects. If the agencies were required to come to Interior, present administrative procedures would need to be changed.

The Department of the Interior has a central concern for environmental quality and would not oppose the placing of many functions relative to the environment in the Department if the mission and mechanism for carrying out those functions were clearly defined. However, this Department does not have the sole responsibility for environmental matters. Other Federal agencies are concerned with air, farmland, forests, and other matters affecting the environment. The bills do not recognize these complex jurisdictional relationships, but rather tend to duplicate functions now carried out by these agencies.

In summary, we believe that the President's Council which is now contemplated is an important step forward in the national effort to focus more attention on the needs of the environment. As we gain experience with the operation of that Council, we are confident that new procedures will evolve leading progressively to more effective environmental management by the Federal Government.

The Bureau of the Budget has advised that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely yours,

RUSSELL E. TRAIN,
Under Secretary of the Interior.

DEPARTMENT OF AGRICULTURE,
Washington, D.C., April 15, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate.

DEAR MR. CHAIRMAN: This is in response to your request for a report on S. 1075, a bill to authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality.

Title I of the bill would authorize the Secretary of the Interior (1) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality; (2) to document and define changes in the natural environment, and to accumulate necessary data and other information for a continuing analysis of these changes or trends and their underlying causes; (3) to develop and maintain an inventory of existing and future natural resource development projects, engineering works, and other major projects and programs contemplated or planned by public or private agencies or organizations which make significant modifications in the natural environment; (4) to establish a system of collecting and receiving information and data on ecological research and evaluations which are in progress or are planned by other public or private agencies or organizations, or individuals; (5) to evaluate and disseminate information of an ecological nature to public and private agencies or organizations, or individuals; (6) to make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring and maintaining, and enhancing the quality of the environment; (7) to initiate and utilize ecological information in the planning and development of resource oriented projects; (8) to encourage other public or private agencies planning development projects to consult with the Secretary on the impact of the proposed projects on the natural environment; (9) to conduct research and studies within natural areas under Federal ownership which are under his jurisdiction and under the jurisdiction of other Federal agencies; and (10) to assist the Council on Environmental Quality.

In addition, the Secretary of the Interior would be required to consult with and provide technical assistance to Federal agencies and would be authorized to obtain from them whatever information, data, reports, advice, and assistance are needed and could reasonably be furnished in carrying out the purposes of the bill. Any Federal agency furnishing advice or assistance would be authorized to expend its own funds for such purposes, with or without reimbursement. The Secretary would be authorized (1) to make grants to and to enter into contracts or cooperative agreements with public or private agencies or organizations or individuals, (2) to accept and use donations of funds, property, personal services or facilities, and (3) to participate in environmental research in surrounding oceans and in other countries if he determines that such activities would contribute to the objectives and purposes of the bill.

The bill specifically states that it is not intended to give or to be construed as giving the Secretary of the Interior any authority over

any authorized program of another department or agency and that it would not repeal, modify, restrict, or amend existing authorities or responsibilities of any department or agency with respect to the natural environment. The Secretary would be required to consult with the heads of departments and agencies to identify and eliminate duplication of effort.

Title II of S. 1075 would create in the Executive Office of the President a three member Council on Environmental Quality, appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate, with the Chairman and Vice Chairman designated by the President. Each member would be professionally qualified to analyze and interpret environmental trends of all kinds and be conscious of and responsive to specific, economic, social, esthetic, and cultural needs and interests of the Nation.

The Council would study and analyze environmental trends and factors that affect the trends, relating each area of study and analysis to the conservation, social, economic, and health goals of the Nation. It would (1) report annually to the President on the state and conditions of the environment, (2) provide advice and assistance to the President on national policies needed to foster and promote improvement of environmental quality, and (3) obtain information concerning the quality of the environment and make it available to the public.

The Council would periodically review and appraise new and existing programs and activities of Federal agencies and make recommendations thereon to the President.

The Council, and the Secretary of the Interior, would assist and advise the President in the preparation of an annual environmental quality report.

Beginning June 30, 1970, the President would transmit annually to the Congress an environmental quality report which would set forth (1) the status and conditions of the major natural, manmade, or altered environmental classes of the Nation; and (2) the current and foreseeable trends in quality, management, and utilization of such environments, and the effects of those trends on the social, economic, and other requirements of the Nation.

This Department agrees that there is a need for further and continuing research into the natural environmental systems of the United States. It has many programs in research on soil and water conservation and forestry that deal with the problems discussed in the bill. The research program of the Forest Service presently includes studies of the natural environmental factors affecting most of our renewable natural resources, including forests, forested and related rangelands, wildlife habitat, recreation, and water conservation and watershed management. Such research embraces all aspects of the ecology of most of the organisms that make up or affect the whole or any part of these resources. Study of related sociologic and economic factors are also a part of this reasearch. The research activities of the Agricultural Research Service also involve ecology of our national environmental systems. The Soil Conservation Service has the national leadership of the National Cooperative Soil Survey which is actively engaged in classifying and mapping the soils of the United States. The soil survey reports include interpretations of the basic soils information for all suitable uses of the land including natural vegetation and wildlife.

Any broader ecological studies would of necessity overlap or duplicate this effort.

The research organization and programs of this Department extend to both public (Federal, State, and local) and private lands. We cooperate actively with other public and private research organizations, including schools and universities. The results of our research program, and the benefits therefrom, are disseminated or available to and used by both public and private landowners in the management of their natural resources. Research of natural environmental systems which S. 1075 would authorize does not lend itself to area limitations such as national forests, national parks, or other political or administrative jurisdictions.

A number of Federal agencies, in addition to this Department as well as the Department of the Interior, have ongoing investigations, studies, surveys, and research in this general field. We believe that the Committee on Environmental Quality that was established by the Office of Science and Technology is usefully serving as a body to coordinate planning and activities in this field. This interagency group is giving certain technical coordination to the Federal programs in this area of concern.

Section 101(c) of the bill would authorize the Secretary of the Interior to develop and maintain an inventory of both public and private projects which may make significant modification in the natural environment.

Many agencies maintain inventory records of that kind of projects. S. 1075 would require the establishment of an extensive new records and reporting system covering numerous public and private activities, large and small, and would require a large organization to assemble, analyze, clarify, and record the inventory information. Furthermore, so many known and unknown activities or related factors make, or may make, significant modifications in natural environment systems that definitions and criteria for inventory subjects would be a task of major proportions in itself.

We recommend against enactment of title I. As pointed out above, not only this Department, but also a number of other Federal agencies, are engaging in a variety of research, study, and investigatory activities related to ecological systems and environment, and compile and maintain inventories of projects and activities. The broad scope of authorities in title I would substantially overlap and duplicate those efforts. We believe that prior to the anactment of new authorities, a careful and comprehensive review of present activities, priorities, and capabilities of the agencies concerned is needed.

We support the objectives of title II of S. 1075 concerning a Council on Environmental Quality. The environment in which we live affects, for better or worse, our health, our outlook and attitudes, our opportunities for a satisfactory life, and even our prospects for continued existence. There is constant interplay of resource use and exploitation, manufacturing processes, and air, water, and soil pollution, with efforts to maintain continuing production, a healthy environment, and attractive surroundings. Many of these factors are effected, favorably or adversely, by Federal, State, and local programs and activities and by the everyday activities of agriculture, industry, and people. We believe that our complex and highly technical society could well benefit from a continuing, detached, broad perspective,

constructive, and understanding appraisal of factors that affect our environment.

However, we do not recommend enactment of the provisions of title II. There is now under consideration establishment of an environmental quality council within the Executive Office of the President. Such a council, we believe, would be able to assist and advise the President on national policies in the field of environmental policy and conduct an assessment of current activities in this area.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely,

J. PHIL CAMPBELL,
Under Secretary.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., April 17, 1969.

Hon. HENRY A. JACKSON,
Chairman, Senate Committee on Interior and Insular Affairs,
New Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Bureau of the Budget on S. 237, S. 1075, and S. 1752. These bills have a basic objective in common: to enhance the Government's capability of dealing with the critical problems of the quality of our environment. Also common to them is the creation of a council in the Executive Office of the President to assist and advise the President on national policies to improve environmental quality.

We concur fully in the basic objective of the bills. The quality of man's environment is being increasingly affected by man's own works, and additional efforts are required to assess the nature of the hazards and the means for their avoidance or amelioration.

The President recently reemphasized his concern on this matter and indicated that actions are underway to assure continuing attention by his administration to environmental factors in the planning and carrying out of Federal programs. A variety of organizational arrangements for accomplishing this objective are now under consideration in the agencies and by the President.

One of the major difficulties in dealing with this area is the broad, almost all encompassing nature of the term "environment." Programs of a number of Federal agencies have as a principal concern the protection or enhancement of aspects of the environment. Other programs affect the environment in various ways. Consequently, organizational arrangements alone will not suffice. It also is necessary to integrate specific environmental considerations into the decisionmaking processes of many agencies to make real progress. As Interior noted in its report to your committee on S. 1075 and S. 1752, a complex set of jurisdictional relationships needs to be evaluated before proposing any new responsibilities or new organization.

As we indicated, improved organizational arrangements for better coordination of policy and program concerns in the field of environmental quality are under active review within the executive branch.

In present circumstances, we believe that such arrangement, particularly those in the Executive Office of the President designed to provide better policy advice and staff assistance to the President, should be undertaken by executive action rather than by legislation in order to assure flexibility necessary in exploratory or pilot efforts and in meeting changing needs.

Accordingly, we do not recommend favorable action at this time on the subject bills.

Sincerely,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference.

NATIONAL SCIENCE FOUNDATION,
OFFICE OF THE DIRECTOR,
Washington, D.C., April 22, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: On March 28 you invited me to testify at hearings to be held on April 15 and 16 on the bill S. 1075, "To authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality," Subsequently, in discussions with your staff, we have learned that pressures of time available for discussing the bill make it preferable for me to submit a letter for the record.

The National Science Foundation supports the objectives of the bill. The interests of the Foundation in environmental problems have been growing for many years, and we have become a major source of Federal support for academic research in the sciences of the environment. The Foundation's mission does not entail responsibility for action programs designed to ameliorate social problems, to improve health, to abate pollution, or to modify the environment. Instead, the Foundation's mission is to aid in improving the store of scientific knowledge on which future action can be based. Thus, Foundation programs, while not specifically problem or solution oriented, are of great importance in maintaining and improving the Nation's ability to understand and cope with the problems relating to the human environment.

In direct support of research on one or another aspect of the environment such as atmospheric sciences, oceanography, environmental biology, earth sciences, etc., the Foundation obligated $77,807,000 in fiscal year 1968. It is estimated that the corresponding total for fiscal year 1969 will be approximately $72,730,000. (The slight decrease is a result of a reduction in our total appropriation and does not represent the assignment of lower priority to these science areas.) This amounts to approximately one-third of the Foundation's support of scientific research. More directly, the Foundation has established an ecosystem analysis program within its Division of Biological and Medical Sciences. For the immediate future this program will have as its major responsibility the administration of Foundation support of the major ecological systems studies being conducted as a part of the International Biological Program (IBP).

In addition to the support of scientific research related to the environment, another contribution of the Foundation is the training and education of young people in all of the basic science areas; including development of improved curricula, the training of teachers, and the administration of direct assistance to high ability students. Other Foundation programs with a direct bearing on U.S. long-range ability in environmental science and technology include science information activities, the application of computer techniques and technology to research and education, international cooperative scientific activities and science policy studies.

The foregoing paragraphs summarize the National Science Foundation's contributions to scientific understanding of our environment. They serve as a prelude to my specific comments on the proposed bill, S. 1075, in order to demonstrate the Foundation's long-standing support of the environmental sciences and our consequent keen interest in the development of related programs. Title I proposes "To authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources and environmental quality." The list of activities in section 101, paragraphs (a) through (j) would cover a broad range of ecological research and related activities to which more attention should be directed. We do not perceive any necessary conflict between the work that would be performed under these several authorities listed and research and training currently planned and in progress under support of the National Science Foundation, even though the objectives coincide to some degree with existing programs of the Foundation. However, ecological research, studies and training are performed by a number of other agencies and any new authority would necessitate a careful review of these activities.

Title II of the proposed S. 1075 would create in the Executive Office of the President a Council on Environmental Quality. As you are no doubt aware, the President has recently established a Council for Urban Affairs and has signified his intention to create a Cabinet level Council on the Quality of the Environment. I understand that Dr. DuBridge has discussed this feature of the bill with you and I would like to defer to him for comment on the proposed Council. However, as indicated above, I do believe that environmental problems are of such great importance that adequate provision should be made to provide all levels of government with the best scientific and technological base from which to make the difficult decisions regarding the best use of our environment.

The Bureau of the Budget has advised us that there is no objection to the submission of this report from the standpoint of the administration's program.

Sincerely yours,

LELAND J. HAWORTH, *Director.*

DEPARTMENT OF STATE,
Washington, D.C., April 21, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: I refer to your letter of March 12, receipt of which was acknowledged on March 18, in which you requested a report on S. 1075, a bill to authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality.

It is noted that the bill proposes to provide for a comprehensive and continuing program of study, review, and research for the purpose, among other things, of promoting and fostering means and measures which will prevent or effectively reduce any adverse effects on the quality of the environment in the management and development of the Nation's natural resources.

The Department of State appreciates the purpose of the bill. However, our response here is directed only to the question of environmental quality as it affects this Department. We are not commenting on the manner in which a Council on Environmental Quality might be established and are not commenting on specific allocations of responsibility to the Secretary of the Interior.

The Department wishes to call attention to the fact, moreover, that the objective of the bill or, for that matter, of any proposition dedicated to the protection of the national environment, cannot be effectively achieved unless it recognizes that existing ecosystems are interrelated by nature or by the activities of man, and that the environmental forces affecting our natural resources disregard political and geographical frontiers. Nature, technological interference, the demands of a population steadily growing in number and opulence, and sheer neglect, produce pollutants which transcend national boundaries. Pollution may be national in origin; its effects and control are international.

Growing recognition of the interrelatedness of the world's ecosystems, on the one side, and of the common danger of pollution to human life, health, and welfare, on the other, have prompted governments everywhere to take official cognizance, and where possible, countermeasures. There is legitimate fear that these problems are increasing in virulence and in their rate of incidence. There is growing awareness that many of them are shared by a number of nations, either because the same problems coexist in different countries or because they are the result of mutual pollution. As a result governments have begun to seek remedy through joint counteraction by using either bilateral or multilateral channels.

International agencies, both intergovernmental and nongovernmental, including the United Nations, ILO, FAO, WHO, WMO, UNESCO, ECE, IAEA, OECD, et al., have for some time been engaged in various programs dealing with specific problems of the environment, for example, air pollution, water pollution, solid waste disposal, and so forth. A report of activities of the U.N. organization is attached. Until recently, however, none of these organizations have attacked the total spectrum of environmental problems.

Within the last 2 years, a number of initiatives have been launched by international agencies which reflect broader vision and which, in fact, were devised to encompass the full range of at least the principal facets of the environmental problem. Most important among these initiatives have been:

1. The international biological program, a cooperative research effort by scientists of 50 nations with the objective of making a worldwide study of organic production of the land, in fresh waters and in the sea and a worldwide study of human adaptability to the changing conditions.

2. The Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere, convened and organized by UNESCO, which produced 20 recommendations calling for action by governments, intergovernmental and nongovernmental organizations with respect to various subjects of research; and proposed a long-term intergovernmental and interdisciplinary program. A copy of the conference report, including the recommendations is attached.

3. The meeting of the Preparatory Group for the Meeting of Governmental Experts on Problems Relating to the Environment, held in February 1969 under the auspices of the Economic Commission for Europe (ECE) to prepare the agenda for a meeting of governmental experts to be held at Prague, Czechoslovakia, in 1971. In keeping with the character of ECE, the conference will focus on economic aspects of the environmental problem obtaining within the ECE region (including the United States). A copy of the report of the meeting is attached.

4. The U.N. Conference on Human Environment. This conference was decided upon by unanimous resolution of the U.N. General Assembly on December 3, 1968 (A/Res/2938, XXIII). A copy is attached. Its rationale is the desire "to provide a framework for comprehensive consideration within the United Nations of the problems of human environment in order to focus the attention of governments and public opinion on the importance and urgency of this question and also to identify those aspects of it that can only or best be solved through international cooperation and agreement."

Coincidental with intergovernmental initiatives, others are going forward at the nongovernmental and governmental level. Among the more significant is the appointment by the International Council of Scientific Unions (ICSU) of an "Ad Hoc Committee on Problems of the Human Environment" which will prepare a report on those man-made problems of the environment "which are of international concern" and "toward the solution of which the scientific competence represented by ICSU could effectively be applied."

The U.S. Government has participated in all the above initiatives. It has had a major share in promoting some and in formulating some of the principal conclusions and recommendations, notably by the UNESCO and ECE Conferences.

It is now actively engaged in the preparation of the U.N. Conference and has submitted its proposals on purpose, scope, objectives, and agenda, as requested by the Under Secretary-General of the U.N.

The U.S. interest in the international aspects is profound and real. It is dictated by the realization that the human environment is one, and that it would be fallacious and arbitrary to divorce the inter-

national aspects from the national. It has been fully documented that air and water pollution, to mention but two, are not respecters of international boundaries. Pollutant problems now considered local in character may be regional or international tomorrow and thus we cannot afford to be indifferent nor complacent about global pollution. It is this international nature of the threat and the concomitant need for international cooperation that has already focused U.S. attention on the need for a broad approach to environmental problems.

Speaking to our NATO partners on April 10, 1969, President Nixon said—"(W)e all have a unique opportunity to pool our skills, our intellects and our inventiveness in finding new ways to use technology to enhance our environments * * * recognizing that these problems have no national or regional boundaries."

Secretary of State Rogers in his appearance before the Senate Foreign Relations Committee emphasized that—

"The fact that * * * we are preparing for a world conference on the human environment is indicative of the degree to which technological development will continue to require institutionalized multilateral cooperation."

In a sense the deterioration of the environment is only one of many problems that face all nations. But, as Herman Pollack, Director of International Scientific and Technological Affairs pointed out before the House Subcommittee on Science, Research, and Development, it is the one problem that accentuates and aggravates all others: population pressures, inadequate food, shelter, and medical care. To arrest and reverse it, calls for the combined effort of all nations.

It is for this reason, Mr. Chairman, we suggest that with respect to any action taken on the question of environmental quality, recognition should be given to the following facts:

1. The deterioration of the national enviroment is part of a global process and thus requires remedial action on an international as well as national scale.

2. Study, review, and research must, therefore, be extended to take into account poblems and problem areas beyond national borders and to enlist the cooperation of other governments and the scientists of other nations.

3. The solution of the environmental problem being a matter of national interest as well as of international concern, U.S. participation in bilateral and multilateral programs dealing with the international aspects of the problem must be recognized as a vital part of U.S. policy to cope with environmental problems.

The Bureau of the Budget advises that from the standpoint of the administration's program there is no objection to submission of this report.

Sincerely yours,

WILLIAM B. MACOMBER, JR.,
Assistant Secretary for Congressional Relations.

(The enclosures referred to are in the files of the committee.)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
May 28, 1969.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This letter is in response to your request of March 12, 1969, for a report on S. 1075, a bill "To authorize the Secretary of the Interior to conduct investigations, studies, surveys, and research relating to the Nation's ecological systems, natural resources, and environmental quality, and to establish a Council on Environmental Quality," and your request of March 13, 1969, for a report on S. 237, a bill "To declare a national policy on conservation development, and utilization of natural resources, and maintenance of the quality of the environment, and for other purposes," and your request of April 3, 1969, for a report on S. 1752, the "Resources, Conservation and Environmental Quality Act of 1969."

S. 1075 would authorize the Secretary of the Interior directly or through grants and contracts to (1) conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality; (2) document and define changes in the natural environment; (3) develop and maintain an inventory of existing and future natural resource development projects and other major projects; (4) establish a system of collecting and receiving information and data on ecological research and evaluation which are in progress or are planned; (5) evaluate and disseminate information of an ecological nature to public and private agencies; (6) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment; (7) initiate and utilize ecological information in the planning and development of resource-oriented projects; (8) encourage other public or private agencies planning development projects to consult with the Secretary of the Interior on the impact of the proposed projects on the natural environment; (9) conduct research and studies within natural areas under Federal ownership; and (10) assist the Council on Environmental Quality that would be established under the legislation.

The bill would not give the Secretary of the Interior authority over programs of other Departments or Agencies of the Government with respect to the natural environment.

The bill would also create in the Executive Office of the President a Council on Environmental Quality composed of three members qualified to interpret environmental trends and be conscious of and responsive to the scientific, economic, social, esthetic and cultural needs and interests of the Nation. The Council would advise and assist the President in the formulation of national policy, annually report on the condition of the environment and review program activity of Federal agencies. These functions would be carried out by studying and analyzing environmental trends and the factors that effect these trends with relation to the conservation, social, economic and health goals of the Nation.

S. 237 would require the President to annually submit to the Congress a report on resources, conservation, and the environment. The report would include the conditions of the environment and other

natural resources, trends in environmental quality and management and utilization of natural resources, adequacy of natural resources to fulfill human and economic requirements, review programs and activities of Federal, State, and local government and nongovernmental entities and individuals and programs to carry out the policies together with recommended legislation.

The bill would also create in the Executive Office of the President a Council of Advisers on Resources, Conservation and the Environment. The function of the Council would be to (1) assist the President in preparing the "Report on Resources, Conservation, and the Environment;" (2) gather timely and authoritative information concerning natural resources conservation, and development of environmental quality trends; (3) appraise the various programs and activities of the Federal Government in light of the declared policy of this legislation; (4) develop and recommend to the President national policies to foster and promote conservation and improve the environment to meet human and economic requirements; (5) make and furnish such studies, reports thereon, and recommendations with respect to matters of Federal resources policy and legislation as the President may request.

S. 237 would also establish in the Senate and in the House of Representatives a special committee to be known as the Select Committee on Resources, Conservation, and the Environment for the purpose of consideration of the "Report on Resources, Conservation, and the Environment."

S. 1752 is very similar to S. 1075, except that in addition to containing similar provisions as S. 1075, the bill (S. 1752) contains provisions similar to those in S. 237 which would establish a joint congressional committee to make studies on matters relating to the Environmental Quality Report, also provided for in the bill. This congressional committee would be known as the Joint Committee on Environmental Quality.

We strongly support an appropriate mechanism for the development of a coordinated national policy on environmental quality. This Department conducts many programs concerned with the environment. These programs almost exclusively concern the effects of environmental stress on human health and welfare. Included in these programs are activities concerned with the effect of environmental forces on man in his home, in the community, and in the workplace, and the environment as it relates to products used by man and their effect on him.

In conducting these programs we have many relationships with other Federal agencies. Some of these are formalized such as that between this Department and the Department of the Interior regarding the public health aspects of water pollution control where the relationship is established by law. Other working relationships are less formal and include, for example, cooperative undertakings conducted through interagency agreements and participation in the activities of committees established under the Federal Council on Science and Technology.

As concern with environmental quality matters has grown and as more Federal agencies have become extensively involved with protecting and improving the environment, it has become obvious to this Department that there is a need for better planning and coordina-

tion of the numerous activities in the environmental area by both the executive and legislative branches of the Government. We are therefore fully in agreement with the objectives of these bills to establish a mechanism for planning and coordinating the environmental quality programs of the Nation.

We are in favor of the objectives in these bills to create in the Executive Office of the President a Council to advise him on matters pertaining to the environment. We would prefer the flexibility of a Council set up administratively. The administration is now considering the establishment of a Council in this manner. Consequently, we do not recommend enactment of the provisions in these bills which would establish by statute such a Council in the executive department.

In regard to the provision of S. 237 which would establish in the Senate and in the House of Representatives a special committee to be known as the Select Committee on Resources, Conservation, and the Environment, and the provision in S. 1752 which would establish a Joint Committee on Environmental Quality, we note there is similar legislation before the Congress such as S. Res. 78, "To establish a Select Committee on Technology and the Human Environment." We defer to the Congress concerning the establishment of this special committee.

With respect to the authorizations in S. 1075 and S. 1752 for the Department of the Interior to conduct studies and research relating to ecological systems and environmental quality, we should like to point out that there are a number of agencies in the executive branch which already have missions and responsibilities bearing on this overall problem. We believe careful consideration and review of all agency activities is needed prior to the enactment of any new authorizations; and such a review is contemplated by the Council referred to above. We note incidentally that both S. 1075 and S. 1752 include provisions specifically stating that the authorizations provided the Department of the Interior would in no way restrict or modify any authority of any other Department or agency of the Government.

We are advised by the Bureau of the Budget that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely,

ROBERT H. FINCH, *Secretary.*

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EXHIBIT 4

FEDERAL REGISTER

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PART II

COUNCIL ON ENVIRONMENTAL QUALITY

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STATEMENTS ON PROPOSED FEDERAL ACTIONS AFFECTING THE ENVIRONMENT

GUIDELINES

COUNCIL ON ENVIRONMENTAL QUALITY

STATEMENTS ON PROPOSED FEDERAL ACTIONS AFFECTING THE ENVIRONMENT

Guidelines

1. *Purpose.* This memorandum provides guidelines to Federal departments, agencies, and establishments for preparing detailed environmental statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment as required by section 102(2)(C) of the National Environmental Policy Act (Public Law 91–190) (hereafter "the Act"). Underlying the preparation of such environmental statements is the mandate of both the Act and Executive Order 11514 (35 F.R. 4247) of March 4, 1970, that all Federal agencies, to the fullest extent possible, direct their policies, plans and programs so as to meet national environmental goals. The objective of section 102(2)(C) of the Act and of these guidelines is to build into the agency decision making process an appropriate and careful consideration of the environmental aspects of proposed action and to assist agencies in implementing not only the letter, but the spirit, of the Act. This memorandum also provides guidance on implementation of section 309 of the Clean Air Act, as amended (42 U.S.C. 1857 et seq.).

2. *Policy.* As early as possible and in all cases prior to agency decision concerning major action or recommendation or a favorable report on legislation that significantly affects the environment, Federal agencies will, in consultation with other appropriate Federal, State, and local agencies, assess in detail the potential environmental impact in order that adverse effects are avoided, and environmental quality is restored or enhanced, to the fullest extent practicable. In particular, alternative actions that will minimize adverse impact should be explored and both the long- and short-range implications to man, his physical and social surroundings, and to nature, should be evaluated in order to avoid to the fullest extent practicable undesirable consequences for the environment.

3. *Agency and OMB procedures.* (a) Pursuant to section 2(f) of Executive Order 11514, the heads of Federal agencies have been directed to proceed with measures required by section 102(2)(C) of the Act. Consequently, each agency will establish, in consultation with the Council on Environmental Quality, not later than June 1, 1970 (and, by July 1, 1971, with respect to requirements imposed by revisions in these guidelines, which will apply to draft environmental statements circulated after June 30, 1971), its own formal procedures for (1) identifying those agency actions requiring environmental statements, the appropriate time prior to decision for the consultations required by section 102(2)(C), and the agency review process for which environmental statements are to be available, (2) obtaining information required in their preparation, (3) designating the officials who are to be responsible for the statements, (4) consulting with and taking account of the comments of appropriate Federal, State, and local agencies, including obtaining the comment of the Administrator of the Environmental Protection Agency, whether or not an environmental statement is prepared, when required under section 309 of the Clean Air Act, as amended, and section 8 of these guidelines, and (5) meeting the requirements of section 2(b) of Executive Order 11514 for providing timely public information on Federal plans and programs with environmental impact including procedures responsive to section 10 of these guidelines. These procedures should be consonant with the guidelines contained herein. Each agency should file seven (7) copies of all such procedures with the Council on Environmental Quality, which will provide advice to agencies in the preparation of their procedures and guidance on the application and interpretation of the Council's guidelines. The Environmental Protection Agency will assist in resolving any question relating to section 309 of the Clean Air Act, as amended.

(b) Each Federal agency should consult, with the assistance of the Council on Environmental Quality and the Office of Management and Budget if desired, with other appropriate Federal agencies in the development of the above procedures so as to achieve consistency in dealing with similar activities and to assure effective coordination among agencies in their review of proposed activities.

(c) State and local review of agency procedures, regulations, and policies for the administration of Federal programs of assistance to State and local governments will be conducted pursuant to procedures established by the Office of Management and Budget Circular No. A–85. For agency procedures subject to OMB Circular No. A–85 a 30-day extension in the July 1, 1971, deadline set in section 3(a) is granted.

(d) It is imperative that existing mechanisms for obtaining the views of Federal, State, and local agencies on proposed Federal actions be utilized to the extent practicable in dealing with environmental matters. The Office of Management and Budget will issue instructions, as necessary, to take full advantage of existing mechanisms (relating to procedures for handling legislation, preparation of budgetary materials, new procedures, water resource and other projects, etc.).

4. *Federal agencies included.* Section 102(2)(C) applies to all agencies of the Federal Government with respect to recommendations or favorable reports on proposals for (i) legislation and (ii) other major Federal actions significantly affecting the quality of the human environment. The phrase "to the fullest extent possible" in section 102(2)(C) is meant to make clear that each agency of the Federal Government shall comply with the requirement unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible. (Section 105 of the Act provides that "The policies and goals set forth in this Act are supplementary to those set forth in existing authorizations of Federal agencies.")

5. *Actions included.* The following criteria will be employed by agencies in deciding whether a proposed action requires the preparation of an environmental statement:

(a) "Actions" include but are not limited to:

(i) Recommendations or favorable reports relating to legislation including that for appropriations. The requirement for following the section 102(2)(C) procedure as elaborated in these guidelines applies to both (i) agency recommendations on their own proposals for legislation and (ii) agency reports on legislation initiated elsewhere. (In the latter case only the agency which has primary responsibility for the subject matter involved will prepare an environmental statement.) The Office of Management and Budget will supplement these general guidelines with specific instructions relating to the way in which the section 102(2)(C) procedure fits into its legislative clearance process;

(ii) Projects and continuing activities: directly undertaken by Federal agencies; supported in whole or in part through Federal contracts, grants, subsidies, loans, or other forms of funding assistance; involving a Federal lease, permit, license, certificate or other entitlement for use;

(iii) Policy, regulations, and procedure-making.

(b) The statutory clause "major Federal actions significantly affecting the quality of the human environment" is to be construed by agencies with a view to the overall, cumulative impact of the action proposed (and of further actions contemplated). Such actions may be localized in their impact, but if there is potential that the environment may be significantly affected, the statement is to be prepared. Proposed actions, the environmental impact of which is likely to be highly controversial, should be covered in all cases. In considering what constitutes major action significantly affecting the environment, agencies should bear in mind that the effect of many Federal decisions about a project or complex of projects can be individually limited but cumulatively considerable. This can occur when one or more agencies over a period of years puts into a project individually minor but collectively major resources, when one decision involving a limited amount of money is a precedent for action in much larger cases or represents a decision in principle about a future major course of action, or when several Government agencies individually make decisions about partial aspects of a major action. The lead agency

should prepare an environmental statement if it is reasonable to anticipate a cumulatively significant impact on the environment from Federal action. "Lead agency" refers to the Federal agency which has primary authority for committing the Federal Government to a course of action with significant environmental impact. As necessary, the Council on Environmental Quality will assist in resolving questions of lead agency determination.

(c) Section 101(b) of the Act indicates the broad range of aspects of the environment to be surveyed in any assessment of significant effect. The Act also indicates that adverse significant effects include those that degrade the quality of the environment, curtail the range of beneficial uses of the environment, and serve short-term, to the disadvantage of long-term, environmental goals. Significant effects can also include actions which may have both beneficial and detrimental effects, even if, on balance, the agency believes that the effect will be beneficial. Significant adverse effects on the quality of the human environment include both those that directly affect human beings and those that indirectly affect human beings through adverse effects on the environment.

(d) Because of the Act's legislative history, environmental protective regulatory activities concurred in or taken by the Environmental Protection Agency are not deemed actions which require the preparation of environmental statements under section 102(2)(C) of the Act.

6. *Content of environmental statement.* (a) The following points are to be covered:

(i) A description of the proposed action including information and technical data adequate to permit a careful assessment of environmental impact by commenting agencies. Where relevant, maps should be provided.

(ii) The probable impact of the proposed action on the environment, including impact on ecological systems such as wildlife, fish, and marine life. Both primary and secondary significant consequences for the environment should be included in the analysis. For example, the implications, if any, of the action for population distribution or concentration should be estimated and an assessment made of the effect of any possible change in population patterns upon the resource base, including land use, water, and public services, of the area in question.

(iii) Any probable adverse environmental effects which cannot be avoided (such as water or air pollution, undesirable land use patterns, damage to life systems, urban congestion, threats to health or other consequences adverse to the environmental goals set out in section 101(b) of the Act).

(iv) Alternatives to the proposed action (section 102(2)(D) of the Act requires the responsible agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"). A rigorous exploration and objective evaluation of alternative actions that might avoid some or all of the adverse environmental effects is essential. Sufficient analysis of such alternatives and their costs and impact on the environment should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might have less detrimental effects.

(v) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. This in essence requires the agency to assess the action for cumulative and long-term effects from the perspective that each generation is trustee of the environment for succeeding generations.

(vi) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. This requires the agency to identify the extent to which the action curtails the range of beneficial uses of the environment.

(vii) Where appropriate, a discussion of problems and objections raised by other Federal, State, and local agencies and by private organizations and individuals in the review process and the disposition of the issues involved. (This section may be added at the end of the review process in the final text of the environmental statement.)

(b) With respect to water quality aspects of the proposed action which have been previously certified by the appropriate State or interstate organization as being in substantial compliance with applicable water quality standards, the comment of the Environmental Protection Agency should also be requested.

(c) Each environmental statement should be prepared in accordance with the precept in section 102(2)(A) of the Act that all agencies of the Federal Government "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decisionmaking which may have an impact on man's environment."

(d) Where an agency follows a practice of declining to favor an alternative until public hearings have been held on a proposed action, a draft environmental statement may be prepared and circulated indicating that two or more alternatives are under consideration.

(e) Appendix 1 prescribes the form of the summary sheet which should accompany each draft and final environmental statement.

7. Federal agencies to be consulted in connection with preparation of environmental statement. A Federal agency considering an action requiring an environmental statement, on the basis of (i) a draft environmental statement for which it takes responsibility or (ii) comparable information followed by a hearing subject to the provisions of the Administrative Procedure Act, should consult with, and obtain the comment on the environmental impact of the action of, Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved. These Federal agencies include components of (depending on the aspect or aspects of the environment):

Advisory Council on Historic Preservation.
Department of Agriculture.
Department of Commerce.
Department of Defense.
Department of Health, Education, and Welfare.
Department of Housing and Urban Development.
Department of the Interior.
Department of State.
Department of Transportation.
Atomic Energy Commission.
Federal Power Commission.
Environmental Protection Agency.
Office of Economic Opportunity.

For actions specifically affecting the environment of their geographic jurisdictions, the following Federal and Federal-State agencies are also to be consulted:

Tennessee Valley Authority.
Appalachian Regional Commission.
National Capital Planning Commission.
Delaware River Basin Commission.
Susquehanna River Basin Commission.

Agencies seeking comment should determine which one or more of the above listed agencies are appropriate to consult on the basis of the areas of expertise identified in Appendix 2 to these guidelines. It is recommended (i) that the above listed departments and agencies establish contact points, which often are most appropriately regional offices, for providing comments on the environmental statements and (ii) that departments from which comment is solicited coordinate and consolidate the comments of their component entities. The requirement in section 102(2)(C) to obtain comment from Federal agencies having jurisdiction or special expertise is in addition to any specific statutory obligation of any Federal agency to coordinate or consult with any other Federal or State agency. Agencies seeking comment may establish time limits of not less than thirty (30) days for reply, after which it may be presumed, unless the agency consulted requests a specified extension of time, that the agency consulted has no comment to make. Agencies seeking comment should endeavor to comply with requests for extensions of time of up to fifteen (15) days.

8. *Interim EPA procedures for implementation of section 309 of the Clean Air Act, as amended.* (a) Section 309 of the Clean Air Act, as amended, provides:

SEC. 309. (a) The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this Act or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 102(2)(C) of Public Law 91-190 applies, and (3) proposed regulations published by any

department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

(b) In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality.

(b) Accordingly, wherever an agency action related to air or water quality, noise abatement and control, pesticide regulation, solid waste disposal, radiation criteria and standards, or other provisions of the authority of the Administrator if the Environmental Protection Agency is involved, including his enforcement authority, Federal agencies are required to submit for review and comment by the Administrator in writing: (i) proposals for new Federal construction projects and other major Federal agency actions to which section 102(2)(C) of the National Environmental Policy Act applies and (ii) proposed legislation and regulations, whether or not section 102(2)(C) of the National Environmental Policy Act applies. (Actions requiring review by the Administrator do not include litigation or enforcement proceedings.) The Administrator's comments shall constitute his comments for the purposes of both section 309 of the Clean Air Act and section 102(2)(C) of the National Environmental Policy Act. A period of 45 days shall be allowed for such review. The Administrator's written comment shall be furnished to the responsible Federal department or agency, to the Council on Environmental Quality and summarized in a notice published in the FEDERAL REGISTER. The public may obtain copies of such comment on request from the Environmental Protection Agency.

9. *State and local review.* Where no public hearing has been held on the proposed action at which the appropriate State and local review has been invited, and where review of the environmental impact of the proposed action by State and local agencies authorized to develop and enforce environmental standards is relevant, such State and local review shall be provided as follows:

(a) For direct Federal development projects and projects assisted under programs listed in Attachment D of the Office of Management and Budget Circular No. A–95, review of draft environmental statements by State and local governments will be through procedures set forth under Part 1 of Circular No. A–95.

(b) Where these procedures are not appropriate and where a proposed action affects matters within their jurisdiction, review of the draft environmental statement on a proposed action by State and local agencies authorized to develop and enforce environmental standards and their comments on the environmental impact of the proposed action may be obtained directly or by distributing the draft environmental statement to the appropriate State, regional and metropolitan clearinghouses unless the Governor of the State involved has designated some other point for obtaining this review.

10. *Use of statements in agency review processes; distribution to Council on Environmental Quality; availability to public.* (a) Agencies will need to identify at what stage or stages of a series of actions relating to a particular matter the environmental statement procedures of this directive will be applied. It will often be necessary to use the procedures both in the development of a national program and in the review of proposed projects within the national program. However, where a grant-in-aid program does not entail prior approval by Federal agencies of specific projects the view of Federal, State, and local agencies in the legislative process may have to suffice. The principle to be applied is to obtain views of other agencies at the earliest feasible time in the development of program and project proposals. Care should be exercised so as not to duplicate the clearance process, but when actions being considered differ significantly from those that have already been reviewed pursuant to section 102(2)(C) of the Act an environmental statement should be provided.

(b) Ten (10) copies of draft environmental statements (when prepared), ten (10) copies of all comments made thereon (to be forwarded to the Council by the entity making comment at the time comment is forwarded to the responsible agency), and ten (10) copies of the final text of environmental statements (together with all comments received thereon by the responsible agency from Federal, State, and local agencies and from private organizations and individuals) shall be supplied to the Council on Environmental Quality in the Executive Office of the President (this will serve as making environmental statements available to the President). It is important that draft environmental statements be prepared and circulated for comment and furnished to the Council early enough in the agency review process before an action is taken in order to permit meaningful consideration of the environmental issues involved. To the maximum extent practicable no administrative action (i.e., any proposed action to be taken by the agency other than agency proposals for legislation to Congress or agency reports on legislation) subject to section 102(2)(C) is to be taken sooner than ninety (90) days after a draft environmental statement has been circulated for comment, furnished to the Council and, except where advance public disclosure will result in significantly increased costs of procurement to the Government, made available to the public pursuant to these guidelines; neither should such administrative action be taken sooner than thirty (30) days after the final text of an environmental statement (together with comments) has been made available to the Council and the public. If the final text of an environmental statement is filed within ninety (90) days after a draft statement has been circulated for comment, furnished to the Council and made public pursuant to this section of these guidelines, the thirty (30) day period and ninety (90) day period may run concurrently to the extent that they overlap.

(c) With respect to recommendations or reports on proposals for legislation to which section 102(2)(C) applies, the final text of the environmental statement and comments thereon should be available to the Congress and to the public in support of the proposed legislation or report. In cases where the scheduling of congressional hearings on recommendations or reports on proposals for legislation which the Federal agency has forwarded to the Congress does not allow adequate time for the completion of a final text of an environmental statement (together with comments), a draft environmental statement may be furnished to the Congress and made available to the public pending transmittal of the comments as received and the final text.

(d) Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these guidelines concerning minimum periods for agency review and advance availability of environmental statements, the Federal agency proposing to take the action should consult with the Council on Environmental Quality about alternative arrangements. Similarly, where there are overriding considerations of expense to the Government or impaired program effectiveness, the responsible agency should consult the Council concerning appropriate modifications of the minimum periods.

(e) In accord with the policy of the National Environmental Policy Act and Executive Order 11514 agencies have a responsibility to develop procedures to insure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties. These procedures shall include, whenever appropriate, provision for public hearings, and shall provide the public with relevant information, including information on alternative courses of action. Agencies which hold hearings on proposed administrative actions or legislation should make the draft environmental statement available to the public at least fifteen (15) days prior to the time of the relevant hearings except where the agency prepares the draft statement on the basis of a hearing subject to the Administrative Procedure Act and preceded by adequate public notice and information to identify the issues and obtain the comments provided for in sections 6–9 of these guidelines.

(f) The agency which prepared the environmental statement is responsible for making the statement and the comments received available to the public pursuant to the provisions of the Freedom of Information Act (5 U.S.C., sec. 552), without regard to the exclusion of interagency memoranda when such

memoranda transmit comments of Federal agencies listed in section 7 of these guidelines upon the environmental impact of proposed actions subject to section 102(2)(C).

(g) Agency procedures prepared pursuant to section 3 of these guidelines shall implement these public information requirements and shall include arrangements for availability of environmental statements and comments at the head and appropriate regional offices of the responsible agency and at appropriate State, regional, and metropolitan clearinghouses unless the Governor of the State involved designates some other point for receipt of this information.

11. *Application of section 102(2)(C) procedure to existing projects and programs.* To the maximum extent practicable the section 102(2)(C) procedure should be applied to further major Federal actions having a significant effect on the environment even though they arise from projects or programs initiated prior to enactment of the Act on January 1, 1970. Where it is not practicable to reassess the basic course of action, it is still important that further incremental major actions be shaped so as to minimize adverse environmental consequences. It is also important in further action that account be taken of environmental consequences not fully evaluated at the outset of the project or program.

12. *Supplementary guidelines, evaluation of procedures.* (a) The Council on Environmental Quality after examining environmental statements and agency procedures with respect to such statements will issue such supplements to these guidelines as are necessary.

(b) Agencies will continue to assess their experience in the implementation of the section 102(2)(C) provisions of the Act and in conforming with these guidelines and report thereon to the Council on Environmental Quality by December 1, 1971. Such reports should include an identification of the problem areas and suggestions for revision or clarification of these guidelines to achieve effective coordination of views on environmental aspects (and alternatives, where appropriate) of proposed actions without imposing unproductive administrative procedures.

RUSSELL E. TRAIN,
Chairman.

APPENDIX I

(Check one) ( ) Draft. ( ) Final Environmental Statement.

Name of Responsible Federal Agency (with name of operating division where appropriate).

1. Name of Action. (Check one) ( ) Administrative Action. ( ) Legislative Action.

2. Brief description of action indicating what States (and counties) particularly affected.

3. Summary of environmental impact and adverse environmental effects.

4. List alternatives considered.

5. a. (For draft statements) List all Federal, State, and local agencies from which comments have been requested.

b. (For final statements) List all Federal, State, and local agencies and other sources from which written comments have been received.

6. Dates draft statement and final statement made available to Council on Environmental Quality and public.

APPENDIX II—FEDERAL AGENCIES WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT ON VARIOUS TYPES OF ENVIRONMENTAL IMPACTS

AIR

Air Quality and Air Pollution Control

Department of Agriculture—
Forest Service (effects on vegetation).
Department of Health, Education, and Welfare (Health aspects).
Environmental Protection Agency—
Air Pollution Control Office.
Department of the Interior—
Bureau of Mines (fossil and gaseous fuel combustion).
Bureau of Sport Fisheries and Wildlife (wildlife).
Department of Transportation—
Assistant Secretary for Systems Development and Technology (auto emissions).
Coast Guard (vessel emissions).
Federal Aviation Administration (aircraft emissions).

Weather Modification

Department of Commerce—
National Oceanic and Atmospheric Administration.
Department of Defense—
Department of the Air Force.
Department of the Interior—
Bureau of Reclamation.

ENERGY

Environmental Aspects of Electric Energy Generation and Transmission

Atomic Energy Commission (nuclear power).
Environmental Protection Agency—
Water Quality Office.
Air Pollution Control Office.
Department of Agriculture—
Rural Electrification Administration (rural areas).
Department of Defense—
Army Corps of Engineers (hydro-facilities).
Federal Power Commission (hydro-facilities and transmission lines).
Department of Housing and Urban Development (urban areas).
Department of the Interior—(facilities on Government lands).

Natural Gas Energy Development, Transmission and Generation

Federal Power Commission (natural gas production, transmission and supply).
Department of the Interior—
Geological Survey.
Bureau of Mines.

HAZARDOUS SUBSTANCES

Toxic Materials

Department of Commerce—
National Oceanic and Atmospheric Administration.
Department of Health, Education and Welfare (Health aspects).
Environmental Protection Agency.
Department of Agriculture—
Agricultural Research Service.
Consumer and Marketing Service.
Department of Defense.
Department of the Interior—
Bureau of Sport Fisheries and Wildlife.

Pesticides

Department of Agriculture—
Agricultural Research Service (biological controls, food and fiber production).
Consumer and Marketing Service.
Forest Service.
Department of Commerce—
National Marine Fisheries Service.
National Oceanic and Atmospheric Administration.
Environmental Protection Agency—
Office of Pesticides.
Department of the Interior—
Bureau of Sport Fisheries and Wildlife (effects on fish and wildlife).
Bureau of Land Management.
Department of Health, Education, and Welfare (Health aspects).

Herbicides

Department of Agriculture—
Agricultural Research Service.
Forest Service.
Environmental Protection Agency—
Office of Pesticides.
Department of Health, Education, and Welfare (Health aspects).
Department of the Interior—
Bureau of Sport Fisheries and Wildlife.
Bureau of Land Management.
Bureau of Reclamation.

Transportation and Handling of Hazardous Materials

Department of Commerce—
Maritime Administration.
National Marine Fisheries Service.
National Oceanic and Atmospheric Administration (impact on marine life).
Department of Defense—
Armed Services Explosive Safety Board.
Army Corps of Engineers (navigable waterways).
Department of Health, Education, and Welfare—
Office of the Surgeon General (Health aspects).
Department of Transportation—
Federal Highway Administration Bureau of Motor Carrier Safety.
Coast Guard.
Federal Railroad Administration.
Federal Aviation Administration.
Assistant Secretary for Systems Development and Technology.
Office of Hazardous Materials.
Office of Pipeline Safety.
Environmental Protection Agecny (hazardous substances).
Atomic Energy Commission (radioactive substances).

LAND USE AND MANAGEMENT

Coastal Areas: Wetlands, Estuaries, Waterfowl Refuges, and Beaches

Department of Agriculture—
Forest Service.
Department of Commerce—
National Marine Fisheries Service (impact on marine life).
National Oceanic and Atmospheric Administration (impact on marine life).
Department of Transportation—
Coast Guard (bridges, navigation).
Department of Defense—
Army Corps of Engineers (beaches, dredge and fill permits, Refuse Act permits).
Department of the Interior—
Bureau of Sport Fisheries and Wildlife.
National Park Service.
U.S. Geological Survey (coastal geology).
Bureau of Outdoor Recreation (beaches).
Department of Agriculture—
Soil Conservation Service (soil stability, hydrology).
Environmental Protection Agency—
Water Quality Office.

Historic and Archeological Sites

Department of the Interior—
National Park Service.
Advisory Council on Historic Preservation.

Department of Housing and Urban Development (urban areas).

Flood Plains and Watersheds

Department of Agriculture—
Agricultural Stabilization and Research Service.
Soil Conservation Service.
Forest Service.
Department of the Interior—
Bureau of Outdoor Recreation.
Bureau of Reclamation.
Bureau of Sport Fisheries and Wildlife.
Bureau of Land Measurement.
U.S. Geological Survey.
Department of Housing and Urban Development (urban areas).
Department of Defense—
Army Corps of Engineers.

Mineral Land Reclamation

Appalachian Regional Commission.
Department of Agriculture—
Forest Service.
Department of the Interior—
Bureau of Mines.
Bureau of Outdoor Recreation.
Bureau of Sport Fisheries and Wildlife.
Bureau of Land Management.
U.S. Geological Survey.
Tennessee Valley Authority.

Parks, Forests, and Outdoor Recreation

Department of Agriculture—
Forest Service.
Soil Conservation Service.
Department of the Interior—
Bureau of Land Management.
National Park Service.
Bureau of Outdoor Recreation.
Bureau of Sport Fisheries and Wildlife.
Department of Defense—
Army Corps of Engineers.
Department of Housing and Urban Development (urban areas).

Soil and Plant Life, Sedimentation, Erosion and Hydrologic Conditions

Department of Agriculture—
Soil Conservation Service.
Agricultural Research Service.
Forest Service.
Department of Defense—
Army Corps of Engineers (dredging, aquatic plants).
Department of Commerce—
National Oceanic and Atmospheric Administration.
Department of the Interior—
Bureau of Land Management.
Bureau of Sport Fisheries and Wildlife.
Geological Survey.
Bureau of Reclamation.

NOISE

Noise Control and Abatement

Department of Health, Education, and Welfare (Health aspects).
Department of Commerce—
National Bureau of Standards.
Department of Transportation—
Assistant Secretary for Systems Development and Technology.
Federal Aviation Administration (Office of Noise Abatement).
Environmental Protection Agency (Office of Noise).
Department of Housing and Urban Development (urban land use aspects, building materials standards).

PHYSIOLOGICAL HEALTH AND HUMAN WELL BEING

Chemical Contamination of Food Products

Department of Agriculture—
Consumer and Marketing Service.
Department of Health, Education, and Welfare (Health aspects).
Environmental Protection Agency—
Office of Pesticides (economic poisons).

Food Additives and Food Sanitation

Department of Health, Education, and Welfare (Health aspects).
Environmental Protection Agency—
Office of Pesticides (economic poisons, e.g., pesticide residues).
Department of Agriculture—
Consumer Marketing Service (meat and poultry products).

Microbiological Contamination

Department of Health, Education, and Welfare (Health aspects).

Radiation and Radiological Health

Department of Commerce—
National Bureau of Standards.
Atomic Energy Commission.
Environmental Protection Agency—
Office of Radiation.
Department of the Interior—
Bureau of Mines (uranium mines).

Sanitation and Waste Systems

Department of Health, Education, and Welfare—(Health aspects).
Department of Defense—
Army Corps of Engineers.
Environmental Protection Agency—
Solid Waste Office.
Water Quality Office.
Department of Transportation—
U.S. Coast Guard (ship sanitation).
Department of the Interior—
Bureau of Mines (mineral waste and recycling, mine acid wastes, urban solid wastes).
Bureau of Land Management (solid wastes on public lands).
Office of Saline Water (demineralization of liquid wastes).

Shellfish Sanitation

Department of Commerce—
National Marine Fisheries Service.
National Oceanic and Atmospheric Administration.
Department of Health, Education, and Welfare (Health aspects).
Environmental Protection Agency—
Office of Water Quality.

TRANSPORTATION

Air Quality

Environmental Protection Agency—
Air Pollution Control Office.
Department of Transportation—
Federal Aviation Administration.
Department of the Interior—
Bureau of Outdoor Recreation.
Bureau of Sport Fisheries and Wildlife.
Department of Commerce—
National Oceanic and Atmospheric Administration (meteorological conditions).

Water Quality

Environmental Protection Agency—
Office of Water Quality.
Department of the Interior—
Bureau of Sport Fisheries and Wildlife.
Department of Commerce—
National Oceanic and Atmospheric Administration (impact on marine life and ocean monitoring).
Department of Defense—
Army Corps of Engineers.
Department of Transportation—
Coast Guard.

URBAN

Congestion in Urban Areas, Housing and Building Displacement

Department of Transportation—
Federal Highway Administration.
tion.
Federal Highway Administration.
Office of Economic Opportunity.
Department of Housing and Urban Development.
Department of the Interior—
Bureau of Outdoor Recreation.

Environmental Effects With Special Impact in Low-Income Neighborhoods

Department of the Interior—
National Park Service.
Office of Economic Opportunity.
Department of Housing and Urban Development (urban areas).
Department of Commerce (economic development areas).
Economic Development Administration.
Department of Transportation—
Urban Mass Transportation Administration.

Rodent Control

Department of Health, Education, and Welfare (Health aspects).
Department of Housing and Urban Development (urban areas).

Urban Planning

Department of Transportation—
Federal Highway Administration
Department of Housing and Urban Development.
Environmental Protection Agency.
Department of the Interior—
Geological Survey.
Bureau of Outdoor Recreation.
Department of Commerce—
Economic Development Administration.

WATER

Water Quality and Water Pollution Control

Department of Agriculture—
Soil Conservation Service.
Forest Service.
Department of the Interior—
Bureau of Reclamation.
Bureau of Land Management.
Bureau of Sports Fisheries and Wildlife.
Bureau of Outdoor Recreation.
Geological Survey.
Office of Saline Water.
Environmental Protection Agency—
Water Quality Office.
Department of Health, Education, and Welfare (Health aspects).
Department of Defense—
Army Corps of Engineers.
Department of the Navy (ship pollution control).
Department of Transportation—
Coast Guard (oil spills, ship sanitation).
Department of Commerce—
National Oceanic and Atmospheric Administration.

Marine Pollution

Department of Commerce—
National Oceanic and Atmospheric Administration.
Department of Transportation—
Coast Guard.
Department of Defense—
Army Corps of Engineers.
Office of Oceanographer of the Navy.

River and Canal Regulation and Stream Channelization

Department of Agriculture—
Soil Conservation Service.
Department of Defense—
Army Corps of Engineers.

Department of the Interior—
Bureau of Reclamation.
Geological Survey.
ureau of Sport Fisheries and Wildlife.
Department of Transportation—
Coast Guard.
WILDLIFE
Environmental Protection Agency.
Department of Agriculture—
Forest Service.
Soil Conservation Service.
Department of the Interior—
Bureau of Sport Fisheries and Wildlife.
Bureau of Land Management.
Bureau of Outdoor Recreation.

FEDERAL AGENCY OFFICES FOR RECEIVING AND COORDINATING COMMENTS UPON ENVIRONMENTAL IMPACT STATEMENTS

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Robert Garvey, Executive Director, Suite 618, 801 19th Street NW., Washington, DC 20006, 343–8607.

DEPARTMENT OF AGRICULTURE

Dr. T. C. Byerly, Office of the Secretary, Washington, D.C., 20250, 388–7803.

APPALACHIAN REGIONAL COMMISSION

Orville H. Lerch, Alternate Federal Co-Chairman, 1666 Connecticut Avenue NW., Washington, DC 20235, 967–4103.

DEPARTMENT OF THE ARMY (CORPS OF ENGINEERS)

Col. J. B. Newman, Executive Director of Civil Works, Office of the Chief of Engineers, Washington, D.C. 20314, 693–7168.

ATOMIC ENERGY COMMISSION

For nonregulatory matters: Joseph J. DiNunno, Director, Office of Environmental Affairs, Washington, D.C. 20545, 973–5391.

For regulatory matters: Christopher L. Henderson, Assistant Director for Regulation, Washington, D.C. 20545, 973–7531.

DEPARTMENT OF COMMERCE

Dr. Sydney R. Galler, Deputy Assistant Secretary for Environmental Affairs, Washington, D.C. 20230, 967–4335.

DEPARTMENT OF DEFENSE

Dr. Louis M. Rousselot, Assistant Secretary for Defense (Health and Environment), Room 3E172, The Pentagon, Washington, DC 20301, 697–2111.

DELAWARE RIVER BASIN COMMISSION

W. Brinton Whitall, Secretary, Post Office Box 360, Trenton, NJ 08603, 609–883–9500.

ENVIRONMENTAL PROTECTION AGENCY

Charles Fabrikant, Director of Impact Statements Office, 1626 K Street NW., Washington, DC 20460, 632–7719.

FEDERAL POWER COMMISSION

Frederick H. Warren, Commission's Advisor on Environmental Quality, 441 G Street NW., Washington, DC 20426, 386–6084.

GENERAL SERVICES ADMINISTRATION

Rod Kreger, Deputy Administrator, General Services Administration–AD, Washington, D.C. 20405, 343–6077.

Alternate contact: Aaron Woloshin, Director, Office of Environmental Affairs, General Services Administration–ADF, 343–4161.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Roger O. Egeberg, Assistant Secretary for Health and Science Affairs, HEW North Building, Washington, D.C. 20202, 963–4254.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT[1]

Charles Orlebeke, Deputy Under Secretary, 451 Seventh Street SW., Washington, DC 20410, 755–6960.

Alternate contact: George Wright, Office of the Deputy Under Secretary, 755–8192.

[1] Contact the Deputy Under Secretary with regard to environmental impacts of legislation, policy statements, program regulations and procedures, and precedent-making project decisions. For all other HUD consultation, contact the HUD Regional Administrator in whose jurisdiction the project lies, as follows:

James J. Barry, Regional Administrator I, Attention: Environmental Clearance Officer, Room 405, John F. Kennedy Federal Building, Boston, MA 02203, 617–223–4066.

S. William Green, Regional Administrator II, Attention: Environmental Clearance Officer, 26 Federal Plaza, New York, NY 10007, 212–264–8068.

Warren P. Phelan, Regional Administrator III, Attention: Environmental Clearance Officer, Curtis Building, Sixth and Walnut Street, Philadelphia, PA 19106, 215–597–2560.

Edward H. Baxter, Regional Administrator IV, Attention: Environmental Clearance Officer, Peachtree-Seventh Building, Atlanta, GA 30323, 404–526–5585.

George Vavoulis, Regional Administrator V, Attention: Environmental Clearance Officer, 360 North Michigan Avenue, Chicago, IL 60601, 312–353–5680.

DEPARTMENT OF THE INTERIOR

Jack O. Horton, Deputy Assistant Secretary for Programs, Washington, D.C. 20240, 343–6181.

NATIONAL CAPITAL PLANNING COMMISSION

Charles H. Conrad, Executive Director, Washington, D.C. 20576, 382–1163.

OFFICE OF ECONOMIC OPPORTUNITY

Frank Carlucci, Director, 1200 19th Street, NW., Washington, DC 20506, 254–6000.

SUSQUEHANA RIVER BASIN COMMISSION

Alan J. Summerville, Water Resources Coordinator, Department of Environmental Resources, 105 South Office Building, Harrisburg, PA. 17120, 717–787–2315.

TENNESSEE VALLEY AUTHORITY

Dr. Francis Gartrell, Director of Environmental Research and Development, 720 Edney Building, Chattanooga, TN 37401, 615–755–2002.

DEPARTMENT OF TRANSPORTATION

Herbert F. DeSimone, Assistant Secretary for Environment and Urban Systems, Washington, D.C. 20590, 426–4563.

DEPARTMENT OF TREASURY

Richard E. Slitor, Assistant Director, Office of Tax Analysis, Washington, D.C. 20220, 964–2797.

DEPARTMENT OF STATE

Christian Herter, Jr., Special Assistant to the Secretary for Environmental Affairs, Washington, D.C. 20520, 632–7964.

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Richard L. Morgan, Regional Administrator VI, Attention: Environmental Clearance Officer, Federal Office Building, 819 Taylor Street, Fort Worth, TX 76102, 817–334–2867.

Harry T. Morley, Jr., Regional Administrator VII, Attention: Environmental Clearance Officer, 911 Walnut Street, Kansas City, MO 64106, 816–374–2661.

Robert C. Rosenheim, Regional Administrator VIII, Attention: Environmental Clearance Officer, Samsonite Building, 1051 South Broadway, Denver, CO 80209, 303–837–4061.

Robert H. Baida, Regional Administrator IX, Attention: Environmental Clearance Officer, 450 Golden Gate Avenue, Post Office Box 36003, San Francisco, CA 94102, 415–556–4752.

Oscar P. Pederson, Regional Administrator X, Attention: Environmental Clearance Officer, Room 226, Arcade Plaza Building, Seattle, WA 98101, 206–583–5415.

EXHIBIT 5

White River National Forest
Forest Supervisor, c/o Brett Crary
900 Grand Ave
Glenwood Springs, CO 81601

Via web submission: https://cara.ecosystem-management.org/Public/CommentInput?Project=59419

April 6, 2021

Dear Brett,

The following are the comments of Rocky Smith et al on the White River National Forest's (WRNF) proposed Aspen Management Project, as described in the Notice of Proposed Action (NOPA) available on the project web page.

I. INTRODUCTION

We have numerous problems with a project of the magnitude proposed, as discussed throughout this letter. We are glad to see that some of the most impacting methods, like use of coppice (units for which could be more than 40 acres) and temporary road construction, will not be used in roadless areas. These prohibitions should be retained in any aspen management proposal.

But we strongly question the need for a project of this magnitude - 10,000 acres of "harvesting activities" and another 10,000 acres of "broadcast burning" per decade. NOPA at 17. Part of the reason for the project is the purported loss of aspen acreage due to fire suppression and subsequent replacement by conifer. NOPA at 2, 16. However, with increasing fires due to a warming climate, aspen acreage will likely increase without any manipulation.

Even with aspen's generally quick regeneration and growth, cutting and burning have impacts, including: fragmentation of wildlife habitat, soil compaction, production of slash that needs to be treated, impacts to scenery, etc. At most, it would seem appropriate to focus aspen cutting on certain localized areas where aspen stands are unraveling, rather than proposing to treat aspen across the landscape.

II. LARGE SCALE TREATMENT OF ASPEN IS NOT NECESSARY OR DESIRABLE

With normal disturbance processes, primarily fire, the acreage of aspen naturally fluctuates over time. In the absence of disturbance, conifers become established under some seral aspen stands and gradually convert the stands to conifer. Then fires or other disturbances occur, resetting the ecological clock to the earliest stages, which is aspen if a root system for this species still exists in or adjacent to the area burned.

Due to human disturbance, aspen coverage on the WRNF probably was at or near an historic high after the early settlement era of roughly 1870 to 1910, when there was much human

activity, including logging and deliberately ignited fires, that affected aspen. This followed a period of low disturbance that lasted from 1706 to 1870. WRNF Forest Plan FEIS at D-23.

Activity during the early settlement era resulted in large areas of forested ecosystems regenerating in a short time period:

> Much of the aspen… on the White River National Forest…was established by the fires associated with the early European settlement of the forest.

Id. at D-20, D-21. The FEIS also notes that a "large acreage of timber removal" was responsible for regenerating many stands. Id. at 3-78. About 50-60 percent of the WRNF's aspen stands are believed to have regenerated during this early settlement period. Id. at D-24.

The Forest Plan analysis of aspen concluded as follows:

> Based on the high magnitude of the disturbances that occurred within a relatively short period of time, at the end of the [19th] century, existing seral aspen is thought to be at the high end of [the historic range of variability] for overall coverage of the landscape of the White River National Forest.

D-34.[1]

Since then, aspen acreage may have decreased, as the NOPA observes:

> …fire suppression over the past few decades has likely resulted in a greater amount of conifer and a lesser amount of aspen across the WRNF.

NOPA at 2; see also id. at 16.

But this decrease should be considered a "normal successional pathway" for aspen stands on the WRNF. FEIS at D-33. Areas now succeeding to conifer probably were conifer-dominated historically. But at the time of the WRNF plan revision (2002), aspen still covered 426,000 acres, or 18.7 percent of the WRNF. Plan FEIS at D-15. This is a significant aspen acreage. Even under the least disturbance scenario (not likely - see below), there would still be plenty of aspen on the WRNF for the foreseeable future, especially with about 50 percent of the WRNF's aspen stands stable. (See more below.)

With global climate change, fires will become more frequent due to the longer time periods each year with warm and dry conditions suitable for fire spread. Indeed, the Grizzly Creek Fire in 2020 burned 32,631 acres, "consuming a mix of oak brush, conifer and Aspens (sic)"[2], much of

[1] See also Kulakowski et al, 2004, who found aspen coverage had increased since prior to the early settlement period in their study area, which included the Grand Mesa, and another part of the Grand Mesa-Uncompahgre-Gunnison National Forest that is just south of the Battlement Mesa area on the WRNF. They state that replacement of aspen by conifers thus "may be within the range of historical variation".

[2] See https://inciweb.nwcg.gov/incident/6942/. For the quote on what the fire consumed, click on "What caused the Grizzly Creek Fire?"

which was on the WRNF. It is reasonable to assume that some aspen will regenerate in this burned area, and in some areas that burn in the future.

It should also be noted that stands converting from aspen to conifer are very diverse. They may support wildlife species that can have habitat in either aspen or spruce-fir forests. Logging these areas destroys this habitat.

Importantly, logging such stands may result in poor aspen regeneration. Aspen regenerate best in mollic soils. These soils are maintained by aspen leaf drop and subsequent decomposition each year. With conifer invasion, the leaf drop is reduced and mollic soil thickness decreases With conifers dropping needles, the soils become more acid, making them better suited for conifer regeneration. See Cryer and Murray, 1992, and Johnston, 2001.

The so-called "improvement" cuts, under which conifers "would be harvested where they occur within aspen clones, or within two tree lengths of aspen clones" (NOPA at 21), may be ineffective in achieving a goal of "creat[ing] a two aged aspen stand". Ibid. If the conifer invasion is sufficiently advanced, the soils may not support much aspen regeneration. Also, if the aspen stand was capable of reproducing under itself, (i. e., it was a stable stand), it probably would already be doing so. Improvement cuts should not be done, especially if an analysis by a soil scientist shows insufficient thickness in the mollic soil layer. Such an analysis must be conducted before improvement cuts, if any, are approved.

Climate change is likely to affect aspen, but the effect is not likely to be entirely adverse to aspen coverage on the landscape. Increased temperatures may make lower-elevation stands more vulnerable to demise from sudden aspen decline (SAD)and/or other drought related impacts; however, more frequent fires and increased CO_2 concentration (acting as an aerial fertilizer) may allow expanded coverage. Alternatively, aspen distribution could shift, decreasing in lower-elevation areas on south- and west-facing slopes, and increasing at higher elevations due to warmer soil temperatures. See Morelli and Carr, 2011. Regenerating lower elevation stands is likely to be fruitless if they will die from increasing drought stress within a few decades, as some models show. See, e. g., USDA Forest Service, 2016 at 16-17.

Efforts to maintain the very high acreage of aspen on the WRNF are thus unnecessary and unwarranted. Creating and maintaining age-class distribution by "diversif[ying] landscape-scale age class structure" (NOPA at 3) would require continuous treatment of the WRNF's aspen stands. That would increase the frequency of disturbance and exacerbate the impacts discussed in these comments. See, e. g., USDA Forest Service, 2016.

It is especially inappropriate to cut stable aspen, which is discussed in the following section.

III. DON'T CUT STABLE ASPEN

According to the analysis in the NOPA (p. 3), the WRNF's aspen is almost exactly 50 percent stable and 50 percent seral. The Forest Plan FEIS states that the WRNF "has many large aspen stands that show no historic or current conifer invasion". Id. at D-33. Stable aspen, by definition,

will likely maintain itself, as these stands can self-reproduce, and, unlike seral stands, do not need a triggering event like a stand replacement fire to regenerate.

We are especially concerned with the possible use of coppice, i. e., clearcutting, in stable aspen stands. NOPA at 21. Stable stands with less than 500 small trees per acre (see ibid.) will still likely maintain themselves. More seedlings may sprout if the stand is left alone. If coppice is used in stable stands, it must be limited to those stands with severe browsing damage where retention of the entire stand is in question, and only then where damage from browsing of the stands to be regenerated can be minimized.

IV. HOW REALISTIC IS IT TO BURN 10,000 ACRES OF ASPEN PER DECADE?

The proposed action calls for 10,000 acres of "broadcast burning" per decade. NOPA at 17. This term is not defined in the NOPA, but we commonly understand it to mean burning a sizable area, often with little preparation, i. e., mostly burning as is.

As is well known, aspen does not readily burn, as it has a live, moist bark. It would likely burn only under extremely dry conditions. During these times, any ignitions spread rapidly, as all vegetation is very dry if aspen is dry and burnable. Generally, it would not be safe to set "prescribed" fires under these conditions, as it would be very difficult or impossible to control any fires. Any fires in aspen under such conditions could easily escape into adjacent conifer stands or grass/shrublands and take off across the landscape.

V. PROTECT ROADLESS AREA INTEGRITY

From the maps at NOPA pp. 7-14, it is clear that a substantial portion of the possible treatment acreage is in roadless areas. Under the Colorado Roadless Rule (CRR) any cutting, sale or removal of trees is basically prohibited in upper tier roadless areas with two narrow exceptions. See 36 CFR 294.42(b). The proposed treatment areas appear to avoid upper tier roadless areas, except possibly for one area on the Eagle Ranger District near NFSR 600.

In non-upper tier roadless areas, tree cutting, sale, or removal can only be done if : the activity is consistent with the forest plan, "roadless area characteristics will be maintained or improved over the long term", and one of the listed exceptions, mainly to protect at-risk communities and water supplies, applies. CRR at 36 CFR 294.42(c).

The roadless area characteristics are:

(1) High quality or undisturbed soil, water, and air;
(2) Sources of public drinking water;
(3) Diversity of plant and animal communities;
(4) Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land;
(5) Primitive, semi-primitive nonmotorized and semi-primitive motorized classes of dispersed recreation;
(6) Reference landscapes;

(7) Natural-appearing landscapes with high scenic quality;
(8) Traditional cultural properties and sacred sites; and
(9) Other locally identified unique characteristics.

CRR at 36 CFR 294.41.

Given the lack of need to cut aspen on a large scale, as discussed above, it is hard to see that any of the exceptions in 294.42(c) would apply or that any roadless area characteristics would be maintained or improved. At least in the short-term, some characteristics would be degraded if the proposed project is implemented.

While some of the most impacting activities would not be implemented in roadless areas, like coppice (NOPA at 21) and temporary road construction (id. at 22), burns in RAs may require "[i]ncidental cutting of trees, to prepare fire lines, mitigate hazard trees, or create favorable fuel profiles" (id. at 20). Though such lines would be constructed by hand crews (ibid,), fire lines resemble roads, and could provide motor vehicle access to portions of roadless areas, including public motorized access after the project was completed. The ground disturbed would also create areas where noxious weeds could get established or existing populations could spread.

We recommend that any fireline construction be minimized in roadless areas, and that any such lines be created by hand and be fully rehabilitated after completion of project activities in each respective RA burn unit. Rehab should be accomplished by ensuring that native vegetation is re-established on any firelines and other treated areas.

VI. PROTECT LYNX

While lynx prefer Engelmann spruce-subalpine fir forests, a study in Colorado found that lynx do use aspen forests:

> Mature Engelmann spruce/subalpine fir forests with total canopy cover of 42–65%, of which 15–20% was contributed by conifer understory tree canopies, were the most commonly used areas, followed by mixed forests of Engelmann spruce/subalpine fir/aspen.

ILBT, 2013, at 52.

Some stands on the WRNF are converting from aspen to conifer. NOPA at 16. These stands may be or soon become good lynx habitat. Subalpine fir, the conifer tree species that typically establishes under aspen, often have crowns that reach to the ground. This can provide the horizontal cover needed for lynx to hunt its favorite prey, snowshoe hare.

Aspen stands with an understory of sapling sized or larger subalpine fir and/or Englemann spruce trees should generally not be treated, especially those at higher elevations. As discussed above, these stands may not regenerate to aspen very well because of soils.

VII. CUTTING ASPEN FOR BIG GAME WINTER RANGE "IMPROVEMENT" WOULD PERPETUATE THE PROBLEM OF DAMAGE TO ASPEN FROM OVERBROWSING

It is questionable if much winter range could be treated because:

> Certain areas in the extreme lower elevations of the White River National Forest are used as winter or traditional range [by elk], but the vast majority of the winter range occurs off the [WRNF].

Forest Plan FEIS at 3-115; emphasis added.

Nevertheless, one of the priorities for the project is to "[i]mprov[e] winter range for elk and mule deer". NOPA at 18.

However, id. at 16 states:

> Browse has the potential to further reduce the extent of aspen on the White River National Forest. Heavy browse from elk can impede aspen regeneration, which is influenced by the change in historic predation. In addition, cattle and sheep browse can cause extensive damage to aspen sprouts.

Aspen shoots are a forage species highly desired by elk and likely by mule deer also. Cutting or burning aspen would likely create fresh regeneration, which would be very attractive to elk. Such areas might soon be heavily browsed. This use could continue for up to 10 years, depending on how fast the sprouts grow, i. e., until the trees were tall enough that the leaves were out of reach of the browsing animals. During this time period, elk could heavily browse many acres, damaging even medium sized clones. In some areas, probably not enough aspen could be treated to avoid this problem. Or if there was enough young aspen, the treatment areas would have to be very large, to the detriment of wildlife habitat, watershed integrity, roadless area characteristics (for units in roadless areas), etc.

Any improvement of winter range accomplished by treating aspen would only last during the period the elk or other animals could reach and consume the aspen leaves. As discussed above, this is not likely to be more than 10 years or so. To maintain this winter range, aspen would then have to be cut or burned again. Treating aspen on such a short rotation along with subsequent damage from browsing would exhaust each clone's carbohydrate resources and would not be sustainable.

Regenerated aspen stands could also be browsed or trampled by livestock for several years after regeneration, increasing the damage to young aspen stands. Livestock would need to be excluded from areas recently treated, probably for 10 years, to minimize this damage.

If the intent of treatment was to improve winter range, then seral aspen stands, if any, at lower elevations (probably below 8000 feet or so) and on south- and west-facing slopes would be treated, as that is where winter range, if any exists in aspen on the WRNF, would be. (See quote from Forest Plan FEIS above.) These stands are the most vulnerable to demise from drought in a warming climate. They might not be able to withstand heavy browsing by elk and other animals.

The NOPA at 20 seems to indicate that stable aspen stands in winter range, up to 65,000 acres, might be burned. Stable aspen stands in winter range should not be treated for the reasons discussed in section III above. There is no reason to treat them because they are in big game winter range, as is discussed here.

Fencing could be used to exclude potentially browsing animals, both big game and domestic livestock, from recently treated areas. However, the amount of fencing needed to exclose 1000 acres each of aspen cut or burned each year would be impractical, both physically and financially.[3] To be effective in excluding elk, fences would have to be at least six feet high. Such fences would also have to be maintained each year, as snow and other physical factors could damage them.

Treating aspen to improve big game winter range is not likely to result in improvement of much winter range, and any improvement could not be sustained. Treatment could also hasten the demise of some lower elevation aspen clones. It should be removed from the proposed action and from the purpose and need for any aspen treatment program or project on the WRNF.

IX. DESIGN TREATMENTS TO PROTECT OTHER WILDLIFE

Many wildlife species use aspen trees for nesting and/or foraging. Treatments must be designed to minimize degradation and destruction of habitat. Even though aspen often readily regenerates and grows rapidly (at least compared to conifers), mature and decadent aspen habitat will not return for several decades or more after treatment.

Aspen should not be cut just because it is decaying. A project objective for management areas in category 5 (except 5.5) and 7.1 is to "[c]onvert decadent and over-mature stands to young stands". NOPA at 19. Aspen stands considered "decadent" should not in most cases be cut. Decaying aspen trees make excellent habitat for cavity nesting species. Once trees fall to the ground, they will slowly decay into new soil and while doing so, provide habitat for small mammals.

Purple martin (*Progne subis*) is one aspen-dependent species of concern in this regard, and generally. It is a Forest Service sensitive species in Region 2. Its conservation status rank in Colorado is S3, vulnerable. Wiggins et al, 2005, which also noted that

> Purple martins are relatively rare breeders in the Intermountain West, and local populations may thus be particularly susceptible to forest management practices that affect their primary breeding habitat, mature aspen.

Id. at 3. Purple martin nest in cavities in mature aspen (ibid.), so retaining old, decaying trees is especially important.

Before any aspen stands are approved for cutting or burning, surveys for purple martin and other species must be conducted. Treatment should not occur near any purple martin populations.

[3] The NOPA contemplates fencing only for small clones. Id. at 22.

Where treatment is proposed, large openings (larger than say 40 acres) should not be created to avoid fragmenting habitat for this and other species. This is particularly important because the proposal places no limits at all on the size of openings, only limiting the total acreage in openings to less than 25% of the area within a given Level 6 HUC watershed, or a 3rd Order stream. NOPA at 18. With no site-specific information provided, the proposed action could result in dozens of 1000-acre clearcuts.

X. PROVIDING FOREST PRODUCTS IS NOT A REASON FOR CUTTING ASPEN.

Part of the purpose and need for the project is to "[p]rovide forest products to local businesses and industries." NOPA at 17. Currently there is little use for aspen wood in the area. Using it for biomass, one possible use, is not appropriate, as that involves burning the wood that was cut, which increases air pollution, including carbon. This would thereby contribute to global warming. On the other hand, leaving the trees standing allows them to continue to remove carbon from the air and produce oxygen.

Only 30 acres and 120 cubic feet (500 board feet) of aspen per year was predicted to be cut by the Forest Plan FEIS under the experienced (expected) budget for each alternative considered. See id. at 3-600, 601. Thus the impacts of cutting 1000 acres per year has not been disclosed. See more below in section XIV.

Also, there is no indication of how much aspen would be cut commercially and contribute to the allowable sale quantity or the timber sale program quantity (TSPQ). Note that the approved TSPQ is only 124 million board feet per decade. Forest Plan Record of Decision at 27. If a significant commercial use could be found for aspen, cutting 1000 aspen acres per year for a decade could produce enough wood to use up most of, or even on its own exceed, the TSPQ.

XI. SLASH TREATMENT

NOPA p. 21 lists possible slash treatment methods, which include machine pile and burn. We strongly urge the Forest Service not to use this method. Numerous passes by machines to pile slash compacts soils. Burning large piles, or even medium-sized piles composed of larger (greater than about 3 inches in diameter) material results in a long-lasting, hot fire that damages soils by killing all micro-organisms and volatilizing nutrients.

We recommend that various other slash methods be used. Piles should be limited to about four feet high and be composed of material hand-piled if possible, or less than about three inches in diameter.

XII. FIGHT NOXIOUS WEEDS AND CONSERVE RARE PLANTS.

Disturbed ground creates ideal locations for introduction and spread of noxious weeds. Thus all prospective treatment areas should first be surveyed for noxious weeds. Any populations discovered should be eradicated to the greatest extent possible, and by non-chemocal means to the extent practicable.

For areas proposed for burning, it is especially important to eradicate cheat grass (*Bromus tectorum*) prior to any activity. This weed readily burns and reestablishes after fire. It easily dominates sites that have been burned.

Weed surveys can also be used to detect rare plant populations. Such populations must be protected. An area large enough to allow significant expansion around each population should be marked and avoided during project implementation.

XIII. ROAD USAGE FOR PROJECT ACTIVITIES.

The NOPA provides no specifics about which roads would be used to implement the project. Rather, it only states that "[e]xisting National Forest System Roads (NFSR) would be used to access treatment areas and remove forest products", and that some maintenance or reconstruction could be necessary. NOPA at 22.

Roads providing access to the WRNF get much use for all sorts of activities, especially recreation. This is particularly true in the parts of the forest closest to the Front Range – the Dillon and much of the Eagle-Holy Cross Districts. Timber haul traffic on these roads can easily conflict with other traffic. Recreational and other non-project users of the WRNF need to know what to expect. Early identification of roads to be used and communication to the public is especially important when roads would be used for log haul. Log trucks are the most likely to have conflicts with other users.

The NOPA does not provide an estimate of how many miles of temporary roads might be needed to implement the proposed treatments. Temporary roads would be limited to 1 mile for each 100 acres treated. NOPA at 22. With up to 1000 acres harvested annually, that would mean up to 10 miles of road could be constructed each year. Further, because the NOPA states that one mile of temporary road could be constructed for every 100 acres of logging, NOPA at 22, the project could result in more than six miles of temporary road per square mile in some areas, an extraordinary density that, even after the roads are closed, may continue to degrade wildlife habitat and cause soil erosion.

It is very important not to proliferate the road system. Therefore, the project must contain a design criterion that requires all temporary roads used for treatment or access to treatment units to be closed and obliterated within a year or so of completion of treatment and any follow-up work.

XIV. PROPOSED NEPA DOCUMENTATION WOULD BE INADEQUATE

The WRNF proposes to document this project with an environmental assessment (EA). NOPA at 1. Is this forthcoming EA intended to cover all possible projects (up to 10,000 acres worth each of cutting and burning) for the entire first decade or even longer?

Apparently, additional NEPA, i. e., for implementation of specific treatments, is not contemplated.

> After site-specific treatment areas are identified, public notification would be conducted. The Forest Service would accept public input appropriate for the size and complexity of a given treatment area.

NOPA at 18. In other words, the Forest Service might accept additional public input on specifically-proposed treatment areas, if it was considered appropriate, but in any case, there would be no disclosures of site-specific impacts.

Any public input would be at the whim of the Forest Service staff, unconstrained by any guidance, regulation, or law. Because this public comment would be provided outside the NEPA process, the public would have no way to hold the Forest Service accountable if the agency declined to respond to comments, ignored contrary scientific information, or declined to consider reasonable alternatives. In short, the Forest Service would have no obligation to care what the public had to say.

Since the treatment areas are not specified beyond the maps in the NOPA (pp. 7-14) showing 375,000 acres[4] by ranger district, the impacts of project implementation cannot be accurately disclosed in one document, let alone an EA, at this time. As envisioned, the EA would serve as a programmatic document. Additional documentation would need to be done for each project, or groups of them, implementing the program. Cumulative impacts would not be disclosed in one overall EA done before any specific areas were proposed for treatment.

> Other projects on the White River National Forest currently allow harvesting and burning of aspen, or are planning additional aspen regeneration activities. The acres proposed under the White River Aspen Management Project would be in addition to those other projects and would not be substituted by activities authorized under different decisions.

NOPA at 17. Since the treatment locations would not be known at the time the EA was completed, neither impacts from the proposed project nor cumulative impacts from various existing and separately-approved projects would not be disclosed. This violates NEPA.

Since impacts will vary depending on where proposed activities are implemented, various courts have required agencies to disclose site-specific impacts in NEPA documents prior to approval of projects. See, e. g.: *New Mexico ex rel. Richardson*, 565 F.3d at 706; *Oregon Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007); *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir. 1995); and *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, 443 F. Supp. 3d 995, 1007-15 (D. Ak. 2020) (finding that a Forest Service broad-scale proposal which provided no site-specific NEPA analysis violated NEPA and other laws).

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[4] This aspen acreage is "aspen baseline habitat…where management activities could occur" under the proposed project. NOPA at 5.

Council Fund v. Goodman, 505 F.3d 884, 892 (9th Cir. 2007); *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir. 1995); and *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, 2019 U.S. Dist. LEXIS 161639, 2019 WL 4602809, Case No. 1:19-cv-00006-SLG (D. Ak. Sep. 23, 2019).

To ensure compliance with NEPA, it would best to prepare an EIS for the overall project. Extraordinary circumstances are present, as roadless areas and lynx, a threatened species under ESA, could be adversely affected by implementation of the proposed project. EAs for individual projects or geographically adjacent ones could be tiered to the project EIS.

If the project proceeds as proposed and an EA or EIS is prepared, a draft document should be released for public comment prior to the start of the objection period. Interested parties deserve an opportunity to comment after reviewing the possible impacts of the proposed project.

We are also concerned that the agency fails to define the project's duration. The project proposes to burn and log a total of up to 20,000 acres of aspen per decade. But the NOPA fails to disclose how many decades this project might continue. It makes little sense for the Forest Service to approve a project with no end date that may long outlive the Forest Plan the project purports to implement.

CONCLUSION

Large scale treatment of aspen as proposed is not warranted. With about 50 percent of the WRNF's aspen being stable and a likelihood of increasing fire that will cause some aspen stands to regenerate, large-scale treatment is a waste of money and other resources. We recommend the project be dropped or considerably downsized to treating local areas where aspen clones appear to be dying out. Even these areas should not be cut unless browsing damage from elk and livestock use can be minimized.

For any project, roadless area characteristics and lynx habitat must be maintained. An EIS should be prepared, but even an EA should be released for public comment. All temporary roads used for the project must be closed and obliterated after use for the project. Additional public comment must be allowed before implementation of the project.

Sincerely,

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