January 8, 2023

RE: Preservation of Green Spaces in Rochester Hills, MI - Opposition to Cell Tower Installations on Parkland

Dear Honorable Members of the Rochester Hills City Council,

It has come to our attention that the City of Rochester Hills is interested in installing commercial wireless telecommunications infrastructure in parks throughout the area. While we fully recognize that access to communications networks is necessary for emergency purposes, the proliferation of large commercial cell towers that mar scenic areas and present unique environmental problems, are not the answer.

As such, we strongly advise against the siting of such facilities on parkland in the City of Rochester Hills, MI for the reasons delineated below.

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Microplastics Pollution from Cell Towers "Masked" with Polyvinyl Chloride ("PVC")

When considering the aesthetics of commercial wireless telecommunications infrastructure, it is likely that proposals by telecommunications companies to install freestanding cell towers, or guyed towers, will include faux tree cell tower designs. Indeed, telecommunications companies will claim that monopine cell towers and other faux tree cell tower designs mitigate visual impairment to scenic viewsheds that otherwise "bare" monopole cell towers would cause. But there is no "free lunch."

Cell towers designed to mimic the appearance of trees are often "masked" by hundreds, if not thousands, of pounds of polyvinyl chloride ("PVC") plastic. A 110-foot tall monopine cell tower contains approximately 10,000 pounds of such materials. Ultraviolet (UV) radiation and exposure to general weather elements like wind, ice, snow, and rain may cause prodigious quantities of PVC shedding from the tower site to the ground, creating a widespread debris field. The discharge of PVC material from faux tree cell towers constitutes an uncontrolled solid waste discharge.

While plastic pollution "clean-ups" may be suggested by future telecommunications service providers to keep PVC plastic degradation "under control," the act of performing waste removal operations cannot realistically be completed given that shedding PVC fragments, often too small to be collected, are dispersed by the wind and waters over a very broad area beyond the footprint of a tower site. Furthermore, telecommunications companies or their subcontractors cannot trespass on surrounding private property and public properties in service of industrial waste abatement operations.

Members of the Environmental Health Trust team are working with local activists and lawyers in Lake Tahoe, CA that surveyed several existing monopine sites around the Lake Tahoe, CA basin. Volunteers found massive amounts of fallen, brittle PVC pine needles at the base of each monopine tower site, along

with chunks of broken fiberglass reinforced plastic branches. (See video footage from November 2021 here.)

We have sued Verizon, the City of South Lake Tahoe, and the Tahoe Regional Planning Agency in federal court to remedy this serious environmental issue. On September 7, 2022, the Lahontan Regional Water Quality Control Board, charged with monitoring water quality in Lake Tahoe, CA, issued five separate orders to telecommunications companies addressing this discovery.

Clear-Cutting of Trees to Facilitate Tower Deployments

In many instances, telecommunications companies must remove trees to build a road that leads to a cell tower installation site so that workers can construct and maintain the facility. Therefore, if the City of Rochester Hills was to approve cell tower sites on parkland, significant tree removal would likely be a consequence of such actions, as was the case in New Canaan, CT.

In April of 2022, Homeland Towers, LLC proposed to install a 115-foot monopine cell tower at 1837 Ponus Ridge Road in New Canaan, CT. The environmental assessment portion of the cell tower application reads as follows:

"Approximately 103 trees will need to be removed in order to construct the compound and the new access drive. Thirty-nine (39) of the 103 trees proposed for removal are 14" or greater dbh. The total area of disturbance will be approximately 40,000 s.f."

Given the City's long-standing commitment to environmental conservation and preservation, clear-cutting trees to make way for unsightly, polluting cell towers on coveted parkland is seriously antithetical to the spirit of Rochester Hills.

Radiofrequency Microwave Radiation Effects on Flora and Fauna

All wireless telecommunications equipment emits radiofrequency microwave radiation, a form of non-ionizing radiation more colloquially known as "wireless radiation." In 2021, a landmark three-part research review titled, "Effects of non-ionizing radiation on flora and fauna" was published in *Reviews on Environmental Health* by B. Blake Levitt, Dr. Henry Lai, and former U.S. Fish and Wildlife senior biologist, Dr. Albert Manville. The 150-page review, citing more than 1,200 scientific references, concludes that, "...broad wildlife effects have been seen on orientation and migration, food finding, reproduction, mating, nest and den building, territorial maintenance and defense, and longevity and survivorship." The review further recommends that regulatory agencies designate air as 'habitat' so that electromagnetic fields can be regulated like other environmental toxicants.

In a 2014 letter to the FCC, the U.S. Department of the Interior wrote that communications towers impact migratory birds in significant ways. Radiation studies at cellular communication towers have documented "...nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death."

A 2013 review of 113 studies, titled "A review of the ecological effects of RF-EMF," found that of the 70% studies analyzed, radiofrequency electromagnetic fields had a significant effect on birds, insects,

plants, and other organisms. Development and reproduction in birds and insects were the most adversely impacted by exposure.

A 2014 German study titled, "Magnetoreception in birds: the effect of radio-frequency fields," concluded that birds have an inability to adjust to radio-frequency fields, suggesting that these fields "interfere directly with the primary processes of magnetoreception and therefore disable the avian compass as long as they are present."

In 2020, the first study investigating how some insects absorb high frequencies of microwave radiation emitted by 4G and 5G wireless systems was published in *Scientific Reports*. The research team concluded that exposure to frequencies between 2 GHz to 120 GHz can lead to increases in absorbed power between 3% and 370%, and that such increases in absorbed power may lead to changes in insect behavior, physiology, and morphology over time.

This is all to say that wireless radiation emitted by cell towers and other wireless telecommunications equipment is scientifically proven to adversely impact wildlife, further reason to limit wireless infrastructure installations to commercial and industrial areas. Notably, the Federal Communications Commission's ("FCC") current wireless radiation exposure limits, which are now more than 27-years-old, do not consider wireless radiation impacts on wildlife. In 2021, the D.C. Circuit Court of Appeals ruled in *Environmental Health Trust et al. v. FCC* that the FCC's decision not to update its 1996 wireless radiation exposure limits was "arbitrary and capricious" under the federal Administrative Procedure Act. The agency failed to provide a "reasoned explanation,"—relying instead on conclusory statements without adequately responding to evidence in the administrative record to determine whether the FCC's guidelines "adequately protect against the harmful effects of exposure to radiofrequency radiation."

Emergency Services: Alternatives to Cell Towers in Scenic Corridors and Environmentally Sensitive Areas

Depending on the topography of an area, 4G wireless networks can cover vast distances. Even low-band 5G wireless network frequencies, like that of T-Mobile's "Extended Range" 5G network, which operates in the 600 MHz range, can extend miles-long areas. This is to say that cell towers do not need to be in the heart of scenic corridors and sensitive ecosystems to provide desired emergency communications services when signals propagate an extensive radius. Rather, they can, and should be, restricted to industrial and commercial zones.

**

Thank you for your consideration of our comments. Please do not hesitate to reach out to us if you have any questions or concerns.

Sincerely,

Theodora Scarato
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EHTRUST.org

Routledge
Taylor & Francis Group

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Environmental Procedures at the FCC: A Case Study in Corporate Capture

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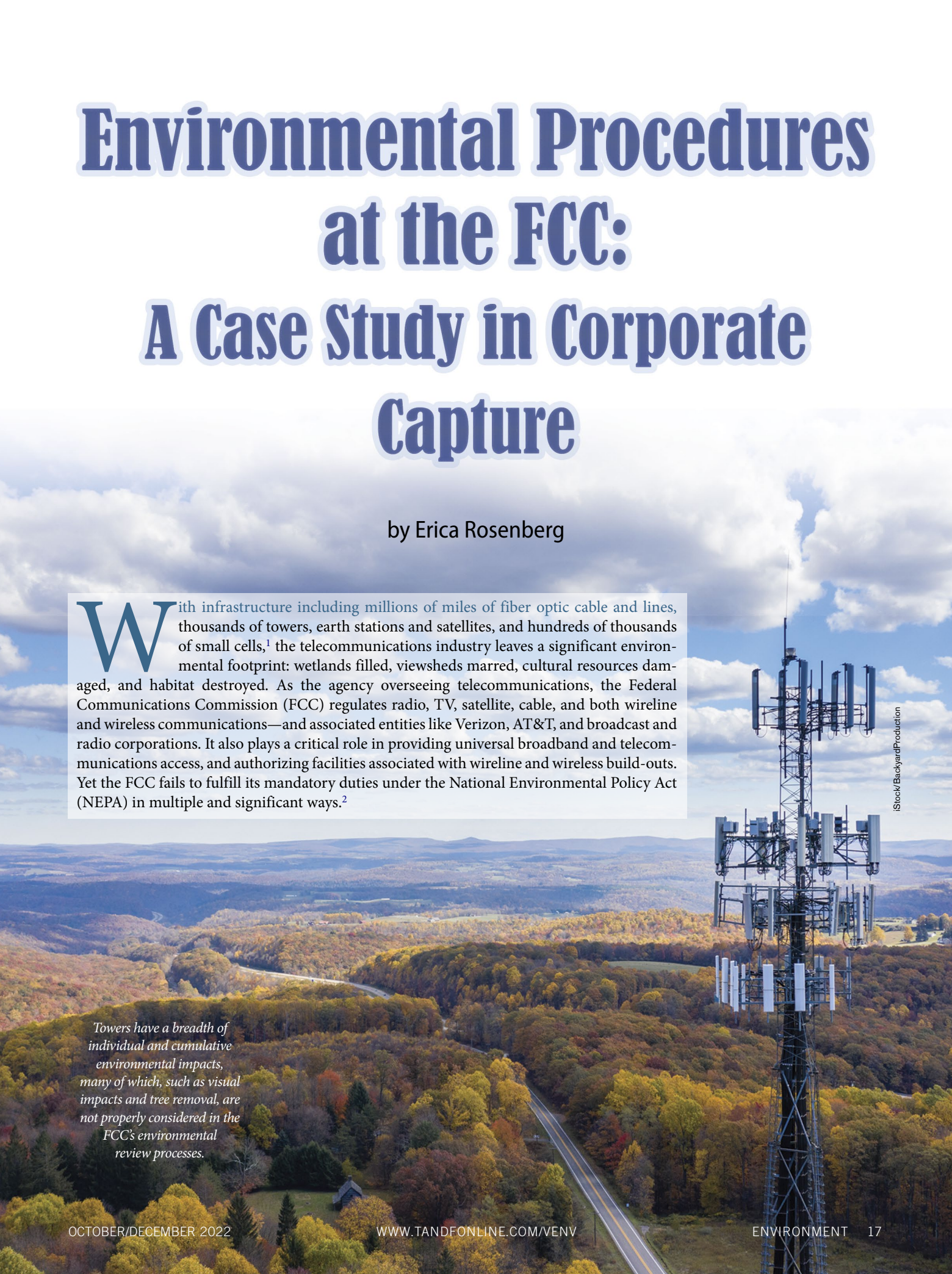
Environmental Procedures at the FCC: A Case Study in Corporate Capture

by Erica Rosenberg

With infrastructure including millions of miles of fiber optic cable and lines, thousands of towers, earth stations and satellites, and hundreds of thousands of small cells,[1] the telecommunications industry leaves a significant environmental footprint: wetlands filled, viewsheds marred, cultural resources damaged, and habitat destroyed. As the agency overseeing telecommunications, the Federal Communications Commission (FCC) regulates radio, TV, satellite, cable, and both wireline and wireless communications—and associated entities like Verizon, AT&T, and broadcast and radio corporations. It also plays a critical role in providing universal broadband and telecommunications access, and authorizing facilities associated with wireline and wireless build-outs. Yet the FCC fails to fulfill its mandatory duties under the National Environmental Policy Act (NEPA) in multiple and significant ways.[2]



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Towers have a breadth of individual and cumulative environmental impacts, many of which, such as visual impacts and tree removal, are not properly considered in the FCC's environmental review processes.

Like all federal agencies, the FCC must follow environmental laws, including NEPA, which requires it to assess potential environmental effects of its actions before it authorizes, funds, or licenses projects and communications infrastructure. These effects include visual and ecological impacts, and radio frequency emission exceedances, caused by the proliferation of wireless technology and the networks constructed to deploy it. The agency is supposed to follow legal requirements to assess such environmental impacts and, in doing so, to consider the concerns of communities and citizens.

It does neither. For most deployments it authorizes, the FCC rarely completes any environmental review or makes NEPA documents available to the public; instead, with little FCC oversight or enforcement, industry is delegated the task of determining how much environmental review is appropriate for its deployments and in most cases, is not required to submit documentation of those determinations.

In licensing and authorizing facilities associated with telecommunications, broadband, and broadcasting technologies, the FCC intentionally and routinely fails to meet its environmental obligations and epitomizes "regulatory capture." It treats environmental laws as obstacles to be circumvented or ignored, first by promulgating rules that fall short of what NEPA requires and then by failing to properly implement and enforce its own substandard rules. The chronic failure has cumulative, incalculable, and largely unknown environmental impacts.

Combined with statutory authority that curtails local government authority to regulate or block telecom deployment in their jurisdiction, public and local voices in what is deployed and where are further diminished.[3] Equally important, the agency suppresses and dismisses the voices of communities and citizens concerned about these encroachments. As wireless infrastructure proliferates under the auspices of an agency that flouts federal law, unabated and unaccounted for environmental impacts will only multiply.

NEPA: An Instrument of Democracy and Accountability

NEPA, a Nixon–era law and one emulated around the world, outlines a process for decision-making about "major federal actions, like dam-building, offshore drilling, and highway expansions.[4] Council on Environmental Quality implementing rules define major federal actions broadly to include "new and continuing activities, including programs entirely or partly financed, assisted, conducted or approved by federal agencies." They also include "approval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision as well as federal and federally assisted activities."[5]

NEPA requires the government to disclose broadly defined environmental impacts of proposed actions—and to consider alternatives—including not undertaking the action.[6] It allows the public, from local governments to tribes to citizens, to participate in the decision.[7]

The greater the potential environmental impacts of a project, action, or policy, the more analysis and the more opportunities for public input and challenge. NEPA requires a full-scale environmental review (environmental impact statement) for major actions with potentially great environmental effects like a highway, a shorter assessment (environmental assessment) for actions that may have less significant impacts, and exemptions from analysis for categories of routine actions (categorical exclusions), like removing brush, that the agency has determined individually or cumulatively have no significant environmental effect. Although a categorical exclusion may exist for an action, in any given case, extraordinary circumstances such as the presence of environmentally sensitive resources can remove an action from a categorical exclusion and require either a documented categorical exclusion or more NEPA review. For example, even if the United States Forest Service categorically excludes brush removal on small tracts, brush removal in critical habitat for endangered species would require the agency to consider and document that its action would still not require an environmental assessment or conduct an environmental assessment.

As a procedural statute, NEPA cannot stop environmentally harmful projects, but it can substantially improve the imprint of an action by, for example, rerouting a power line to protect a stream, or bringing information about wildlife to light so that licensees can take mitigation measures. In short, NEPA, by mandating transparency and accountability, is an instrument of democracy and good governance. NEPA also requires that agencies promulgate policies or rules implementing NEPA in accordance with Council on Environmental Quality rules, and in consultation with the Council on Environmental Quality.

FCC's Failure to Consider Major Federal Actions

Council on Environmental Quality rules place many of the FCC's licensing and funding activities squarely within the definition of a major federal action. Yet the FCC has construed major federal actions narrowly or has simply not considered whether its actions are major federal actions. Consequently, the agency has not considered actions like providing financial assistance to carriers for deployment of small cells and build-outs with associated cable-laying and transmission lines as major federal actions.[8]

In 2018, the agency went as far as to deem all licensing of small cell facilities, which it authorizes as part of a license to carriers, as not requiring environmental review because they were not major federal actions.[9] Termed by industry as unobtrusive—"smaller than a pizza box or backpack"[10]—small cell facilities can be significantly larger and are placed on buildings or associated poles. In its order, the agency both eliminated federal environmental review of small cells and significantly limited local authority over small wireless infrastructure deployment.

In her dissent to the order, FCC Commissioner Jessica Rosenworcel noted that 5G would require millions of miles of fiber and up to 800,000 small

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The FCC is authorizing the deployment of hundreds of thousands of small cells with little public input or environmental review.

cells by 2026. The order thus "runs roughshod over the rights of our Tribal communities and gives short shrift to our most basic environmental and historic preservation values."[11] She noted that the Mobility Fund, which supports carriers in bringing wireless services to underserved areas, would support updated wireless service, to the tune of $4.53 billion. Yet in effect, she states, the FCC reads "projects carried out with financial assistance" (a requirement of the National Historic Preservation Act) as well as NEPA out of the law.[12] It also "removes many larger wireless facilities from environmental oversight."[13]

The FCC's efforts to eliminate small cell review were struck down by the D.C. Circuit in *United Keetoowah v. FCC*,[14] a case brought by the Natural Resources Defense Council and several tribes. The court found: "The scale of the deployment the FCC seeks to facilitate, particularly given its exemption of small cells that require new construction, makes it impossible on this record to credit the claim that small cell deregulation will 'leave little to no environmental footprint. *Order* ¶ 41.'"[15]

Appropriately, the FCC considers licensing spectrum and registering towers to be major federal actions that trigger NEPA. However, while the FCC recognizes that its grant of geographic licenses to carriers triggers NEPA, it issues the licenses without any knowledge of how the licensee will deploy infrastructure in its build-out. In most cases, it cannot know because the carrier may not have finalized its build-out plans for construction of towers, transmission lines, and small cell facilities over time. In fact, the agency does not prepare and never has prepared an environmental impact statement on a build out—or on any other major federal action; it has only prepared one programmatic environmental assessment, which was in response to a lawsuit.[16] Instead, it requires NEPA review only on a facility-by-facility basis, which also circumvents a NEPA requirement to consider cumulative effects.[17] Segmenting a project into smaller components is illegal, and the FCC's approach is another way it flouts the law.

FCC's Inadequate NEPA Rules

FCC NEPA rules undermine NEPA at every turn—they are inadequate both as written and as implemented. The rules' unusual structure and an agency that interprets its rules in favor of the carriers mean that most projects proceed without adequate environmental review and consideration.

Unlike other agencies' rules, FCC rules do not identify categories of actions that do not require further NEPA review; rather, the rules categorically exclude *all* actions the agency takes except for those that meet a limited set of itemized extraordinary circumstances.[18] In other

Wireless infrastructure is changing the character of historic buildings and neighborhoods.

instances, the FCC deems its actions categorically excluded. For example, construction of submarine cables, which indisputably has potentially significant environmental impacts to reefs, ocean floors, and marine life, is explicitly excluded from review following a 1974 FCC order asserting that the environmental consequences are negligible.[19]

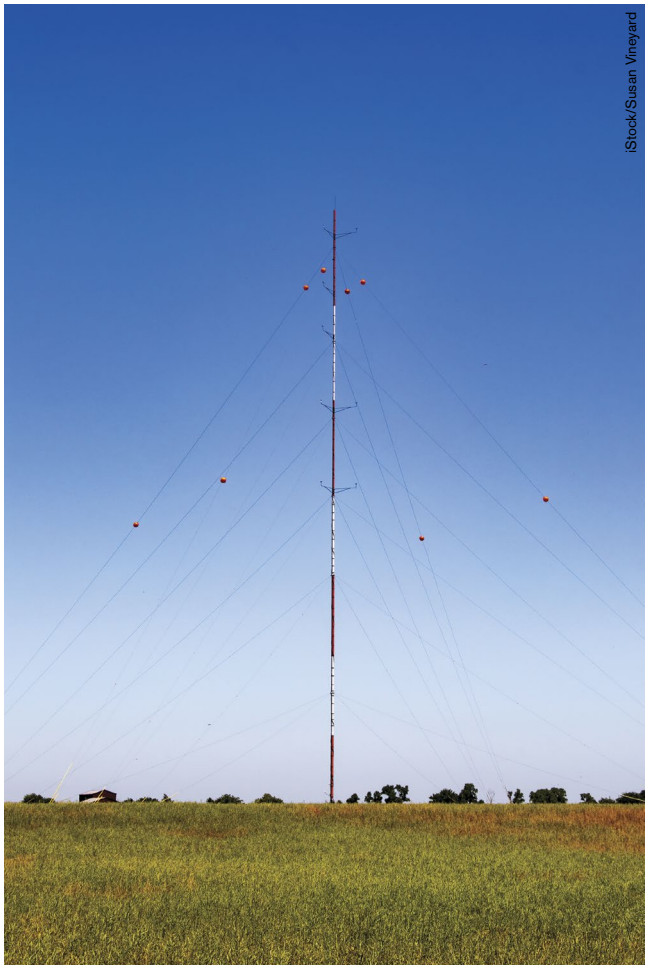
In dismissing the petition brought by an environmental nongovernmental organization to require more environmental review for a number of FCC actions, including those involving submarine cables, the 1974 order acknowledged environmental damage from cables in Maine and the U.S. Virgin Islands but illogically found no need for environmental review because the projects violated state law and permits.[20]

By not considering FCC actions major federal actions and by relying on a broad and unsupported categorical exclusion, countless activities with potentially significant environmental impacts or actual impacts proceed with little or no NEPA review or public involvement. Unlike many agencies, FCC lacks a NEPA coordinating office and most bureaus within the agency have no NEPA expertise or even awareness of the obligations the statute confers on the agency.

Streamlined Effects: The NEPA Checklist

The agency also skirts its NEPA obligations through its procedures and practice around "effects" consideration. It defines effects narrowly and by doing so, removes actions from public notice and comment. Most egregiously, it delegates the initial consideration of effects to applicants and licensees—telecom companies, for the most part—to determine whether an environmental assessment is warranted or whether the project is categorically excluded, and because the review is not submitted to the FCC, it typically performs no subsequent review of the applicants' documentation.

Council on Environmental Quality regulations define effects broadly.[21] FCC rules and practices limit the consideration of environmental effects. They also limit the extraordinary circumstances that would warrant a higher level of environmental review (i.e., an environmental assessment) and public input for the action—through both its narrow list of circumstances and its narrow interpretation of those circumstances. Those limited circumstances are actions involving facilities that: may affect Indian cultural sites or historic resources (i.e., National Historical Preservation Act triggers); may affect threatened or endangered species or their habitat; may involve significant changes in surface features (such as to wetlands or forests); are in a floodplain if equipment is not raised; exceed radio frequency emissions limitations; involve high-intensity lights in residential areas; are in wilderness areas or wildlife



Tall, guyed towers kill millions of birds a year.

refuges; or are more than 450 feet tall in light of potential impacts to migratory birds.[22] These circumstances are referred to as "the NEPA checklist."

Even so, FCC has in effect gutted most elements of the checklist. For example, for the floodplain trigger,[23] as long as equipment is raised for a facility in a floodplain, no environmental assessment is required, although no evidence of raising the equipment or a local permit need be submitted. Although required by Council on Environmental Quality (which unfortunately approved the 2018 rule change), no cumulative effects of building in floodplains are considered. Similarly, applicants often fail to submit an environmental assessment when they have received a federal or state wetlands permit, so again, no evidence is submitted to the agency or for public review.

To eliminate another environmental assessment trigger, rule changes in 2020 allow projects that affect historic properties and cultural resources to proceed without an environmental assessment.[24] "Change in surface features" has in practice required consideration of wetlands impacts (i.e., whether a federal permit is needed), rather than considering large-scale vegetation or soil removal, or grading of sensitive habitats. Thus, even if several acres are bulldozed or dozens of trees cleared, an environmental assessment is not required.

A comprehensive NEPA review for telecommunications infrastructure is both possible and required by other agencies. For instance, the National Telecommunications and Information Administration, which also supports expanding broadband access and adoption, considers a breadth of effects under NEPA that the FCC's checklist fails to consider.[25] National Telecommunications and Information Administration, for example, requires consideration of cumulative effects.[26]

Delegation of Review: Fox Guarding the Hen House

Even more extraordinary than its failure to consider a breadth of environmental effects for most of its actions is the FCC's delegation of consideration of environmental effects to the applicant or licensee. In other words, self-interested parties conduct the NEPA checklist environmental review. Under Council on Environmental Quality rules, the federal agency is ultimately responsible for the environmental document, regardless of who prepares it.[27] Yet under FCC procedures, the agency never even sees the

initial environmental review documenting that a categorical exclusion, rather than a more extensive environmental review, is supported—except in the unlikely event it requests checklist documentation following a complaint.

No other agency allows the applicant to make the initial determination of whether a project is categorically excluded or requires an environmental assessment. Other agencies require submission of documentation of that determination or make the determination themselves. Instead, the FCC relies on applicants to be truthful in their dealings with the agency—yet rarely if ever has it enforced against applicants who make false statements on its forms. Applicants submit documentation only when checklist review triggers an environmental assessment. This approach to ensuring compliance with the NEPA rule is at best unrealistic and at worst, a license to deceive.

No FCC oversight ensures that applicants have done their due diligence to consider the checklist circumstances properly or to even review the circumstances at all. With no agency or public awareness, applicants can simply categorically exclude their projects that involve even larger scale impacts. In East Fishkill, New York, for example, more than 50 trees were cleared from a forested area along a highway known for its scenic views, with no environmental assessment.[28]

Incorrect, confusing, or inadequate filing instructions further ensure that the applicant's work will be incomplete.[29] The instructions themselves fail to even reflect the inadequate rules because they omit Endangered Species Act considerations, do not capture National Historical Preservation Association requirements, omit wetlands concerns, and include outdated floodplain requirements. Similarly, NEPA checklist guidance used until June 2022 did not even reflect the rules on environmental assessment triggers or environmental assessment content requirements.[30]

The checklist allows for only a very narrow set of environmental assessment triggers. In theory, FCC rules do allow for consideration of non-checklist effects or effects missed in the checklist review—those raised by members of the public and those raised by the FCC on its own motion.[31] In reality, this almost never happens. The FCC inevitably fails to consider some potentially significant effects outside of the checklist because it relies entirely on the public to identify them, it never initiates its own review, it relies on self-interested applicants to review projects, and it views its mission as facilitating deployment.

Lack of Notice and Public Availability of Documents

Limiting notice and public availability of documents is another way the agency fails to meet fundamental NEPA responsibilities. Council on Environmental Quality rules require both notice of

The effects of cell towers in sensitive areas like coastal zones and wetlands are not fully considered in the FCC's NEPA process.

actions and opportunities for public comment.[32] In fact, the rules require that agencies make "diligent efforts" to involve the public in implementing their NEPA procedures.[33] Instead, the FCC makes diligent efforts to exclude the public from raising concerns under NEPA.

Applicants and licensees submit no documentation of their determination that their project is categorically excluded, and the agency does not track categorically excluded actions. With the applicant conducting the initial environmental review of whether the project is categorically excluded by assessing the list of extraordinary circumstances (i.e., the NEPA checklist), as well as preparing the environmental assessment, the burden falls on the public to learn of the proposed action and to raise a potential effect.

But categorically excluded actions, including authorization of certain towers, do not receive public notice; only applications for towers that require registration (generally taller than 199 feet) are put on notice, and those may or may not have associated environmental assessments. In addition to towers under 200 feet not posing an air hazard, these stealth projects that the agency has no record of include small wireless facilities associated with 4G and 5G.

That the public has no access to this information is particularly problematic in the radio frequency context, where applicants are required to meet radio frequency emissions standards or submit an environmental assessment. If the applicants do analyze the checklist and radio frequency studies at all, they routinely categorically exclude small wireless facilities, despite growing public concern about radio frequency associated with such technologies. Without access to the documented checklist, the public has little to no basis on which to refute or comment on checklist conclusions on radio frequency. And given the streamlined process, citizens often find out about facilities only after they are built.

Lack of Transparency: Notice of EAs

While the public is completely disenfranchised on categorically excluded projects, the situation with environmental assessments is only slightly better. If an environmental assessment is required because the applicant identified a trigger on the NEPA checklist, the tower or other structure must be registered. But it is not the environmental assessment itself that is publicly noticed—it is the application for the tower registration or license modification. The notice serves only to notice for 30 days that an application for an antenna structure at a particular location has been submitted. Members of the public interested in that structure must track down the application in the antenna structure registration system and then see whether an environmental assessment is attached. To find environmental assessments that are "accessible," a member of the public would have to know that a proposed antenna structure registration included an environmental assessment.

Hence, notice is hardly "public." Rather than being posted on a readily accessible, centralized site for NEPA documents,[34] the registration application and the associated environmental assessment, if done, are buried in a hard-to-access, byzantine website.[35] Without project coordinates or an exact site location, it is difficult to get into the website and, once in, to find the environmental documents. To complicate matters further, environmental assessments associated with licensee towers that do not need to be registered (i.e., short towers) are noticed separately and are buried on a different webpage.[36]

Comments Deemed "Complaints"

Even if the public manages to overcome FCC hurdles and ascertain information about a proposed facility, it faces nearly insurmountable obstacles to get its concerns heard or addressed. Under NEPA, the burden of looking at effects is a federal obligation—it is not up to the public to establish a case but merely to apprise the agency of potential effects to consider; the comment period allows the agency to meet its NEPA obligations by giving the public an opportunity to raise effects or alternatives not considered in the environmental review process.

But rather than a standard, fair, or open comment process in which the agency considers and responds to concerns raised by the public, the FCC administers an adversarial complaints process that requires the public to meet a high burden of proof about a potential effect that may have been overlooked in the checklist or inaccurately documented.[37] With a process that unfairly shifts the burden of raising and establishing environmental concerns from the agency to the public, the outcome is always the same. The FCC virtually never finds that complaints are valid. To dismiss them or resolve them in the applicant's favor so that the project can proceed, it routinely finds that the complainant has not provided specific enough detail or an adequate scientific showing for the agency to consider an effect.

Compounding the unlikelihood that the public will learn about a project and be able to weigh in is a timing issue. When the public finds out about a project that the applicant has deemed categorically excluded (either by doing the checklist or failing to do the checklist), there is no timeline to comment on or complain about the project. With no notice and no timeline for these projects that proceed with no agency awareness, the public often learns about the projects when construction begins or, just as likely, when the facility is already built.

Because the applicant need not consider aesthetics, for example, a tower visible from a state park could be deemed categorically excluded and built before the public sees the impact to its viewshed. Rarely, if ever, will the FCC decide an environmental assessment is required under the circumstances because the applicant ostensibly did what was required of it by assessing the minimal checklist. Furthermore, in terms of failure to comply with NEPA, environmental assessments are submitted so late in the process that a meaningful alternatives analysis—a hallmark and requirement of NEPA[38]—is foreclosed.

Aesthetic Effects: The Greatest Impacts Never Addressed

Perhaps most egregious is the agency's approach to aesthetic impacts.

Applicants should be required to consider aesthetic impacts because, by the FCC's own account in its rulemaking, visual impacts are by far the most significant impact a tower could have.[39] As originally promulgated, FCC's NEPA regulations triggered an environmental assessment when facilities were to be located "in areas which are recognized either nationally or locally for their special scenic or recreational value."[40] Again and again in the rulemaking, visual effects were cited as the greatest impact, as well as an impact to be mitigated.[41] Yet in 1985, the FCC decided the standard was "unduly vague," and that it was unnecessary for applicants to submit environmental assessments in cases that "may raise aesthetic concerns."[42] It also noted that "aesthetic concerns may more appropriately be resolved by local, state, regional or local land use authorities"[43]—although NEPA is an independent federal obligation.

On the rare occasion when the FCC does consider aesthetics, its examination is generally limited to consideration of impacts to nationally designated scenic trails and historic sites (the latter falling under visual effects under National Historical Preservation Association) or to national parks, although nothing in NEPA or Council on Environmental Quality rules limits consideration of aesthetic impacts solely to those designated areas. This practice precludes consideration of impacts to, for example, scenic tourist areas or state or locally designated battlefields and parks. In 2014, AT&T built a tower in Fort Ransom, North Dakota, visible from a nearby National Scenic Tail and Scenic Byway, without having to consider aesthetic impacts.[44] Towers have been built in the viewsheds of, for example, a National Scenic Trail in Vergennes, Michigan, an iconic bridge in New York, a civil rights site in Selma, Alabama, and on Dewey Beach, Delaware's sand dunes, with little notice, consideration of visual impacts, or mitigation.

Little Compliance, Little Enforcement

With no oversight to ensure applicants have done the due diligence required to consider the checklist and no on-the-ground inspections, lack of compliance with the rules is rampant

Large-scale projects with multiple facilities built without NEPA review include hundreds of towers in Alaska built by GCI.[45] Between 2001 and 2015, T-Mobile built hundreds of towers in 22 states without environmental review.[46] In New Mexico and Texas, Plateau Telecommunications built 58 towers with no National Historical Preservation Association review.[47] Telalaska built 28 towers near and in sensitive areas in Alaska with no repercussions.[48] With no Enforcement Bureau action, the Wireless Telecommunications Bureau and Alliant Energy Corporation agreed in 2017 to a compliance plan after Alliant built 109 towers and 93 poles without NEPA review.[49] Railroad noncompliance was so widespread that the FCC entered into a settlement agreement with several railroads that created a $10 million cultural resources fund for 11,000 constructed poles that had not gone thru National Historical Preservation Association or NEPA review.[50]

Smaller-scale projects and individual towers also have significant impacts. For example, in 2019, licensees in Broward County, Florida, cleared 36 trees and built a driveway through a forested wetland before completing environmental review.[51] In Sabana Grande, Puerto Rico, a tower builder in 2014 bulldozed critical habitat for an endangered bird.[52] Dozens of sacred sites have been similarly destroyed or damaged across the country, as have multiple cultural resources and historic and archaeological sites.

Although towers can alter iconic views, the FCC does not require licensees to consider aesthetic impacts.

Cell towers are altering and marring views across the country.

Many of these failures to comply with environmental requirements come to light as National Historical Preservation Association violations, rather than as NEPA violations, because the National Historical Preservation Association process, as part of the checklist, requires photo documentation and official state and tribal review. Complaints from these officials or the public and self-reporting—often unintentionally with photos submitted through increasingly rare environmental assessment submissions[53]—are generally the sole bases for enforcement.

Conveniently for an agency intent on deployment, the FCC's Enforcement Bureau operates under a one-year statute of limitations—one year from the time the facility was built, not from when the agency learned of the violation. As a result, by the time the agency learns of the violation and decides to take action, it is often prohibited from levying fines against the violator.

When the agency does take action, it amounts, with few exceptions, to a slap on the wrist. In 2016, six licensees got admonishment letters with no penalties and little agency publicity.[54] For the past decade or so, Wireless Telecommunications Bureau admonishment letters, which number from zero to six per year, warn of the potential for increased fines and punishments if violators break rules again. But the agency could not fine the violators and does not track the letters. Fines are rare and if levied, de minimis.[55] At most, penalties are ordered once or twice a year, and tower removal, which would be a reasonable and authorized remedy for violations, is never ordered.

In one instance, clearing guy-wire areas for a 1,500-foot broadcast tower in Punta Gorda, Florida, destroyed 2.6 acres of treed habitat for bonneted bats, an endangered species. As mitigation, the applicant paid $28,000 to the U.S. Fish and Wildlife Service, while the FCC issued a Finding of No Significant Impact and imposed a fine of $28,000.[56]

Ex Post Facto NEPA: A Concept Not Contemplated by NEPA

To address instances of noncompliance, the agency has instead devised an ex post facto NEPA process under which the violators conduct and submit an after-the-fact checklist or environmental assessment. If an environmental assessment is required, these half-built or fully built projects then receive the FONSIs that are a prerequisite for construction. Enforcement action may, but more likely will not, follow; with no repercussions, a 485-foot broadcast tower in Chattanooga, Tennessee, was built and operating for months before it got its FONSI in 2021.[57]

Since 2002, the agency has used a clearance process for noncompliant towers (i.e., those that have not gone through the National Historical Preservation Association and NEPA process).[58] For example, on March 28, 2012, the FCC "cleared" with a post-construction review the 58 towers that Plateau Telecommunications had built in violation of historic preservation procedures.[59] Other elements of the requisite NEPA review were ignored—and are often ignored in this process.

Regardless, NEPA may not be done retroactively, and the substantive value of this follow-up exercise is unclear. It

Beyond visual impacts, cell towers built in pristine areas can affect sensitive species and ecosystems.

is hard to assess damage to a site never evaluated for the presence of, for example, wetlands, sensitive species, historic resources, or sacred sites before clearing took place. More importantly, given the dearth of documentation, little means for the agency to discover violations, and lack of oversight at the agency, it is unclear just how many projects that impact environmentally sensitive areas are constructed with improper or no checklist review, or get started without waiting for a FONSI to construct; most of the sites where environmental damage occurred and the degree of destruction will never be known.

By routinely clearing towers with post-construction checklist reviews, the agency creates incentives for tower companies and carriers to build their towers and, if necessary, do paperwork later. Given the lax enforcement and the statute of limitations issue, this approach from industry's perspective would be quite reasonable.

Conclusion: Prospects for a More Accountable FCC

Clearly, the FCC's NEPA process falls short of what NEPA and Council on Environmental Quality require.

- It ignores major federal actions requiring environmental review, such as its distribution to industry of billions of dollars that support build-outs for updated wireless service, or improperly deems certain major federal actions nonmajor federal actions to circumvent NEPA.
- Its NEPA rules create an unsupported and overbroad categorical exclusion so that, for example, satellite licensing and submarine cable licensing are excluded from review.
- With little oversight or tracking, it delegates environmental review of NEPA determinations to industry proponents of the project.
- It fails to vigorously enforce its rules so that industry noncompliance is rampant.
- It fails to provide adequate notice and opportunities for public comment.
- It fails to make environmental documents, including radio frequency emissions studies, publicly available or readily accessible.
- It routinely ignores or dismisses public comments and concerns and places an unfair burden of proof on the public when it raises concerns.

These practices serve to facilitate deployment for carriers while ignoring environmental rules and the public. Besides environmental costs, the FCC's approach bespeaks a lack of transparency

and accountability that undermines good governance and erodes democracy. It also bespeaks an agency completely captured by the entities it is tasked with regulating.

Recent Biden-era NEPA implementing rules[60] require agencies to revisit their NEPA rules and procedures by September 2023.[61] They also require that the agencies have the capacity to comply with NEPA,[62] something the FCC has to date lacked. Perhaps when Council on Environmental Quality reviews the FCC's procedures this time, it will scrutinize the rules more carefully and hold the agency to a higher standard for NEPA compliance.

An environmental and public lands policy attorney with over 30 years of experience, including in agencies, Congress, and academia, **Erica Rosenberg** worked at the FCC's Wireless Telecommunications Bureau from 2014 to 2021; for the last six of those years, she was Assistant Chief of the Competition and Infrastructure Policy Division.

NOTES

1. Unlike macro-cells or wireless cell towers, a small cell installation consists of radio equipment and antennas placed every few meters on structures such as streetlights, buildings, or poles.
2. 42 U.S.C. §4371 *et seq*.
3. Telecommunications Act of 1996, Section 704, 47 U.S.C §332.
4. 40 CFR §1508.18 (1978). Note: Unless otherwise noted, NEPA regulations cited are 1978 regulations (i.e., pre-Trump and Biden-era regulations). The FCC was bound by those regulations until April 2022.
5. 40 CFR §1508.18.
6. 40 CFR §1508.8.
7. 40 CFR §§1501.2(d)2), 1.1501.7((a)(1), 1.1503.1, 1.1506.6.
8. Other agencies, such as the National Telecommunications and Information Administration (NTIA), do conduct NEPA reviews for such actions.
9. *See* Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment ("Infrastructure Order") (WT Docket 17-79, FCC 18-30), (March 22, 2018), 33 FCC Rcd 3102 (4).
10. *See* CTIA blog, March 27, 2018 ctia.org/news/what-is-a-small-cell.
11. 11. *See* Infrastructure Order, Rosenworcel dissenting statement.
12. 12. *Id.*
13. 13. *Id.*
14. *United Keetoowah Band of Cherokee Indians v. FCC,* 933 F. 3d 728 (D.C. Cir. 2019).
15. *Id*. at 741. Between the time the Order was issued and the decision handed down, however, countless small wireless facilities were deployed without NEPA review.
16. Final Programmatic Environmental Assessment for the Antenna Structure Registration Program, FCC (March 13, 2013).
17. *See* 40 CFR §1508.7(cumulative impacts); §1508.8 (b) (effects include cumulative).
18. 47 CFR §1.1306(a).
19. 49 FCC 2d 1313,para. 14(a) (1974); *see also* 47 CFR §1.1306 Note 1. (EA requirements do not "encompass the construction of new submarine cables systems.")
20. *See* In the matter of Public Employees for Environmental Responsibility, FCC 01-319, n. 46.
21. *See* §1501.3; §1508.1(g)(1) (definition of effects includes aesthetic, health, economic, etc.).
22. 47 CFR § 1.1307.
23. 47 CFR §1.1307(a)(6).
24. Declaratory Ruling and Notice of Proposed Rulemaking, In the Matter of Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012, FCC 20-75A (June 9, 2020), paras. 45–50. 35 FCC Rcd 5977.
25. https://broadbandusa.ntia.doc.gov/sites/default/files/2021-07/July%202021%20BB%20Infra%20Webinar_FINAL%20Presentation_0.pdf, p. 23.
26. *See id.* at p. 50.
27. *See generally* 40 CFR §1506.5.
28. *See* letter from Michael S. Fishman, Conservation Biologist, Edgewood Environmental Consulting, to Noelle Rayman USFS biologist, Cortland, NY, November 13, 2020, Re: Determination of Adverse Effects from Wireless EDGE—WEC-NY-23 Cell Tower 90 Carpenter Road, East Fishkill, Dutchess County, NY 41°34'40.37"N, 73°47'03.84"W.
29. *See, e.g*., Form 601 instructions (https://www.fcc.gov/sites/default/files/fcc-form-601.pdf): Item 22.
30. 30. *See* "FCC Environmental Assessment" (checklist) (undated).
31. *See* 47 CFR §§1.1307(c) and (d).
32. 40 CFR §1506.6 (provide public notice of availability of environmental documents).
33. 40 CFR §1506.6(a).
34. 40 CFR §1506.6 ("provide public notice of NEPA related-hearings … and the availability of environmental documents").
35. wireless2.fcc.gov/UlsApp/AsrSearch/asrApplicationSearch.jsp (application) and wireless2.fcc.gov/UlsApp/AsrSearch/asrApplicationSearch.jsp (environmental notice).
36. wireless2.fcc.gov/UlsApp/AsrSearch/asrApplicationLicense.jsp.
37. In *American Bird Conservancy, v. CTIA*, 516 F.3d 1027, 1033 (D.C. Cir. 2008). the court admonished the FCC for setting too high a standard.
38. *See* 40 CFR §1508.9 (EAs include consideration of alternatives).
39. *See, e.g.,* 49 FCC 2d 1313 (1974), para. 32 ("we have stressed the visual or aesthetic impacts of [such] facilities as their primary environmental effect").
40. *Id.* at para. 14.
41. *See, e.g., id.,* at paras. 18, 23, 27, 28, 32.
42. 986 WL 292182, 60 Rad. Reg. 2d, para. 11 (November 25, 1985).
43. *Id*. at para. 122.
44. AT&T Mobile Services, Inc. Construction of Tower Fort Ransom, North Dakota; Complaints of the Sheyenne River Valley National Scenic Byway, Don Busta, Judith L. Morris, and the North Country Trail Ass'n, Memorandum Opinion and Order, 30 FCC Rcd 11023, 11032, para. 28 (WTB/CIPD 2015).
45. *See* Consent Decree (DA 15-1179) (October 20, 2015).
46. Phoenix Towers International acquired the towers and in 2016, sought to bring them into compliance.
47. 27 FCC Rcd. 2972 (March 29, 2012) (letter to Gregory W. Whitaker from Dan Abeyta, WTB).
48. *See* email from Amy Summe, Shannon and Wilson, to Erica Rosenberg, Assistant Chief, Competition and Infrastructure Policy Division, Wireless Bureau, FCC re: Towers, after-the-fact NEPA compliance, February 14, 2020.
49. *See* email from Michelle Yun, Senior Attorney, Alliant to Jiaming Shang, Attorney Advisor, Wireless Telecommunications Bureau, FCC and attachment "Final Compliance Plan.pdf (May 23, 2017).
50. https://www.fcc.gov/document/fcc-announces-actions-facilitate-ptc-implementation; https://www.indianz.com/News/2014/06/04/tribes-take-role-in-major-rail.asp.
51. *See* ASR No. 1136027, Broward County, West Hollywood Telecommunications facility, filed November 2019 (attached EA).
52. See ASR No. A1062663, Wise Towers, filed December 29, 2016 (attached EA and filings).
53. *See., e.g.,* ASR No. A1179538 (attached EA, dated December 8, 2020, for a 610-foot tower in Weedville, PA indicates that the applicant cleared several acres of sensitive species habitat before completing environmental review). (Appendix III, pp. 17-18).
54. *See, e.g.,* letter to Kenneth Meyers, President and CEO, United States Cellular Corporation from Jeffrey Steinberg, Deputy Chief, CIPD, WTB, June, 16, 2016, re: Violation of FCC Environmental Rules.
55. *See, e.g.,* In re: Western Wireless Corp, FCC 03-109 (May 6, 2003) (tower built near several historic sites and operating in violation of environmental rules fined $200,000). The fine was ultimately rescinded on November 17, 2004.
56. *See* Consent Decree, In re: Fort Myers Broadcasting Company (DA21- 1365) (November 2, 2021).
57. *See* FONSI letter to Brian Fuqua, Greater Chattanooga Public TV Corp from Erica Rosenberg, Assistant Chief, Competition and Infrastructure Policy Division, Wireless Bureau, FCC (April 14, 2021).
58. In 2009, over 1,000 AT&T towers built pre-2001 without NEPA documentation were "cleared." Letter from Jeffrey Steinberg Deputy Chief, SPCD to Jeanine Poltronieri, AT&T (January 16, 2009).
59. 27 FCC Rcd 2972 (March 29, 2012) (letter to Gregory W. Whitaker from Dan Abeyta, WTB, FCC).
60. 40 CFR §100 et seq. (April 20, 2022).
61. *See* 40 CFR §1507.3 (2022).
62. *See id.*