Draft Code Feedback and Department Response Matrix

This attachment summarizes feedback and provides the Department's response to public comments received between January 8 and February 26, 2019. The end of this document provides the detailed comments submitted during the public comment period. Some comments provided suggested revisions through redline and comments in the proposal. These individual comments are referenced as enumerated in each redline document. The public process may change the proposal and Department responses in this matrix.

Comments received generally addressed one or more of the following topics:

- Reduce the proliferation of new cell site deployments because of health risks related to Radio Frequency Emissions.
- Allow more macrosite options to ensure primary coverage to all areas of Kitsap County.
- Remove the gap analysis requirements.
- Remove or revise the related equipment shrouding requirements.
- Reduce permitting and design requirements for collocations and small wireless facilities.

The staff report dated 1/17/2019 referenced consistency with the 2016 Comprehensive Plan goals and policies (Page 7). The following goals and policies provide additional support for the proposal and Department responses to comments in this matrix.

- **Environment Goal 1. Formally treat natural environments, including forest lands, shorelines, freshwater systems, intact ecosystems, and other critical areas, as an essential asset that is planned for, managed, and invested in to meet the needs of current and future generations.**
  - Environment Policy 7. Regularly review relevant codes, development regulations and implementing programs to assure that the natural environment is being managed as an essential asset. Adaptive management strategies will be part of this regular review.
- **Environment Goal 3. Reduce the risk of damage to life, property and the natural environment through appropriate regulatory and incentive-based approaches in land use, transportation and development engineering programs.**
  - Environment Policy 15. Maintain, and periodically review and revise, scientifically sound maps and data to provide optimal information during the development review process and planning efforts, as well as information regarding barriers to fish passage and other inventory items.
- **Capital Facilities and Utilities Goal 8: Ensure utilities are provided in an efficient, coordinated and timely manner between Utility providers to meet the needs of the County's future population.**
  - Capital Facilities and Utilities Policy 25. Encourage siting of large, above ground utilities (e.g. antennas, towers) in industrial or commercial areas or along appropriate transportation and utility corridors.
  - Capital Facilities and Utilities Policy 27: Minimize the visual impact of utility facilities on view corridors, vistas and adjacent properties by developing design standards for cellular towers, antennas and other types of utility facilities.
- **Capital Facilities and Utilities Goal 10. Minimize environmental impacts of utility facilities and operations.**
  - Capital Facilities and Utilities Policy 35. Encourage the use of underground utilities, and coordinate utility placement with road improvements.

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PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
1.	**General statements** • Rural areas of Kitsap County need more coverage. • Will the County deploy new cell sites as part of this code?	Individual carriers provide wireless service and typically develop their infrastructure independently. The proposal includes design standards intended to allow deployment of future wireless facilities by: • increasing the ability to collocate facilities in the future. • clarifying code to add consistency and predictability to the permit process.	2, 3, 7
2.	**Purpose statement** **17.530.010 A.2.** **17.530.010 A.5.** Remove A.2. "eliminate visual impacts" from the purpose statement. Eliminating visual impacts is an unattainable goal. Remove A.5. Network need determines site location. The process cannot be comprehensive because it is based on individual carrier need. Revise A.6. to "encourage" not "require" stealth technology.	The purpose statements indicate the intent of the code and provide a basis for interpreting and applying code. The purpose statements do not establish requirements. This is why the proposal reduces permit requirements for facilities that minimize visual impacts (i.e., a tower-based facility disguised to look like a tree, natural feature, or structure compatible with its surroundings).	5: LV1 6: MP1 18

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Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
3.	**Exemptions - redefine replacement and reconstruction requirements.** **17.530.010 B.** **17.530.030 A.1.** **17.530.070 D.** Replace "identical dimensions or smaller dimensions and less intrusive appearance" with "do not significantly change the visual impacts" or "substantially similar structure". Identical dimensions or structures is overly restrictive when considering changes to industry technology. Minor variations in dimensions and appearance of replacement equipment should not cause the loss of an exemption.	The County requires clear language and criteria to make consistent and predictable decisions. The shortened time to review permits reinforces this need for clear criteria. The County worked with members of the Washington Association of Telecommunication Officers and Advisors (WATOA) and the National Association of Telecommunication Officers and Advisors (NATOA). "Identical or of smaller dimension" assures that Kitsap County receives the newest modular equipment similar to large municipalities. Emergency or routine repairs may occur through the letter of exemption permits. Repairs and reconstruction are subject to the required land use approvals relative to substantial change criteria in section 17.530.030 A 'Permits required'.	6: MP1 18
4.	**Exemptions - Exempt first responder facilities.** **17.530.010 B.** Add subsection B.9. to exempt facilities constructed to serve first responders.	The Department suggests changing the proposal to exempt wireless facilities constructed to serve only first responders: *17.530.010 B. "9. Wireless communication facilities constructed to serve only first responders, such as fire, police and emergency medical response services."*	6

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5.	**Prohibited facility types - allow facilities on historic sites.** **17.530.010 C.1** Allow facilities on historic sites through detailed review. A full prohibition limits a providers ability to serve historic places where people congregate.	To remove this prohibition and still protect historic places, the county must add detailed provisions to code. Developing new code provisions will require additional analysis and consistency review against federal and state law. 2016 Comprehensive Plan Land Use Strategy 3 suggests considering the establishment of a historic review board for Kitsap County. Prohibiting the construction of wireless facilities on historic structures remains consistent with Land Use Policy 22 until the County establishes a historic review board. Land Use Policy 22 states: *"Preserve and protect features of historic, archaeological, cultural, scientific and educational value or significance through coordination and consultation with the appropriate local, state and federal authorities, affected Indian tribes, and property owners, through non-regulatory means."* This prohibition does not contradict state law. The National Historic Preservation Act (NHPA) of 1966, 54 U.S.C. § 300101 et seq., provides an extensive process for applicants regarding adverse impacts to a historic place (Section 106 review). However, not all applications require section 106 review (e.g., the FCC exempted all small wireless facilities from the Section 106 review through FCC 18-30A1). The Department suggests changing the proposal to only allow facilities in historic places if the NHPA conducts a section 106 review: *17.530.010 C.1.b. "On real property or structures listed, or eligible for listing, on the:* *i. National or Washington Registers of Historic Places.* *ii. Official historic structures or historic districts lists maintained by the county.* *A facility that conducts a Section 106 review through the National Historic Preservation Act (NHPA) of 1966, 54 U.S.C. § 300101 et seq., shall not be prohibited."*	5: LV2 6: MP2

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6.	**Prohibited facility types - allow guy wire towers.** **17.530.010 C.2.a** Guy wire towers should be allowed. These facilities are a useful technology in rural areas with significant winds. Detailed review and required bird strike mitigation can address visual and environmental impacts.	The Migratory Bird Treaty Act (MBTA) associates communication towers with unintentional bird strikes. The County designed the proposed code to allow the deployment of shorter towers such that guy wire towers become unnecessary. This prevents Kitsap County from allowing structures that may be considered a taking under the MBTA. The Department of Interior provides conflicting interpretations from 2016 to 2017 regarding incidential takings (see attached MBTA factsheet dated May 12, 2016, MBTA Temporary Suspension dated 2/6/2017, and MBTA Incidental Taking Interpretation 12/22/2017). The interpretations don't restrict the County from prohibiting guy wire towers. The proposal implements the intent of the MBTA as referenced in Section 3.e.1(9) of executive order 13186 from 1/10/2001 "Federal agency responsibilities…identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations…the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take" (Page 3). The attached FCC factsheet suggests mitigation of bird strikes through lighting strategies and placing visual obstructions on guy wires. These strategies conflict with: • 2016 Kitsap County Comprehensive Plan goals and policies. • Section 17.530.040 B and C (General development standards: visual appearance and lighting).  MBTA_ExecOrder_2001_0110.pdf  MBTA_factsheet_2016_0512.pdf  MBTA_temp_suspension_2017_0206.pdf  MBTA_IncidentalTake_m_37050_2017_12	5: LV3

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7.	**Prohibited facility locations - allow tower-based facilities in more locations.** **17.530.010 C.2.b.** **17.530.010 C.2.d.** **17.530.010 C.2.e.** • Undergrounding of utilities in the ROW should not bar WCF towers elsewhere in the entire undergrounded area. • Allow within buffers to the extent allowed for other development, with mitigation. • Don't limit stealth technology to natural features. Matching building architecture should qualify as stealth technology.	The proposal reduces permit requirements for facilities that minimize visual impacts. Undergrounding. The County's definition for towers could apply to small wireless facilities, but that was not the intent. The Department suggests changing the definition of towers to not include small wireless facilities. This change allows small wireless facilities where utilities are otherwise underground. Title 19 'Critical Areas Ordinance' regulates construction in critical area buffers. However, section 19.200.225 G. may allow the placement of utilities within wetlands or buffers. This includes communication facilities as a utility as defined in section 19.150.630. This intends to allow wires or small poles in specific circumstances, not a tower-based facility. Changing the proposal to allow a wireless communication facility in a critical area or its buffer would require detailed design standards. The Department suggests changing the proposal to qualify building architecture and structure as stealth technology: *17.530.010 C.2.e. "…a tree , ~~or~~ natural feature, or structure (i.e., silo, church steeple, or clock tower) that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'."*	5: LV4 6: MP4 - MP6 18

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8.	**Permitting (P) - stealth technology should include built features.** **17.530.030 A.2.e.** **17.110.687** Don't limit stealth technology to natural features. Matching building architecture, color, or deploying structures that fit with surroundings (e.g., silo on a farm, steeple on a church, clock tower) should qualify as stealth technology and allowed through an ACUP permit.	The Department suggests changing the proposal. *17.530.030 A.2.e. "…a tree , ~~or~~ natural feature, or structure (i.e., silo, church steeple, or clock tower) that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'."* The Department suggests changing the definition of stealth technology: *17.110.687 "Stealth technology" means…building-mounted antennas painted to match the existing structure, tower based facilities colored to match or be compatible with natural or built features, and facilities constructed to resemble trees, shrubs, light poles, flag poles, chimneys, church crosses, clock towers, gas station signs, statues, or rocks as appropriate to the surrounding environment.*	5: LV5 6: MP7, MP8
9.	**P - reduce permit requirements for collocations and small wireless facilities.** **17.530.030 A.** **17.530.030 M.** An administrative appeal of an ACUP to the hearing examiner is part of the shot clock. A permit appealed to a CUP will exceed the allowed permit review time of 90 days. Reduce land use permit requirements for these facility types. Building permits, right of way permits, and franchise agreements requirements still apply. This still protects public health, safety, and welfare and removes barriers for deployment of collocated facilities.	The FCC rulings and limited case law do not clearly address whether the time required for an administrative appeal process factors into the calculation of a shot clock. The County understands the issue and suggests changing the proposal to not allow for administrative appeals. The Revised Code of Washington (RCW) 36.70B.110(9) allows the county to do this. *17.530.030 M. "Appeals. A decision on a letter of exemption or an ACUP may not be appealed to the Hearing Examiner in accordance with Section 21.04.290 'Appeals'.* Requiring an ACUP still allows Kitsap County to solicit and receive public comment. Changing the permit type to a letter of exemption removes the public opportunity to comment in addition to removing the opportunity to appeal the permit.	5: LV5 6: MP7, MP8

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10.	**P - update CFR reference.** **17.530.030 C.1.** Change reference from 47 CFR 1.40001 to CFR 16100.	The Department suggests changing the proposal as stated. *17.530.030 C.1. "… with 47 USC 1455(a) and 47 CFR 1. 16100~~40001~~, as now or hereafter amended…"*	6: MP10
11.	**P - revise ACUP application requirements.** **17.530.030 D.3.** **17.530.030 D.7.** **17.530.030 D.8.** **17.530.030 D.9.** • A report should describe, not justify, the height, dimensions, and location. The FCC order doesn't allow a jurisdiction to require a coverage gap analysis or justification of design. • Building permit applications should satisfy the strucutural engineering submittal requirements. Other jurisdictions will typically allow this. • A letter of authorization from the property owner should be allowed instead of lease documents. Lease negotiations and permit approval typically occur in parallel to reduce time to deployment. Sometimes the lease agreements requires permit approval first. • Do not require submittal of an agreement between a carrier and the applicant. This is not appropriate or practical. Change this to a condition of approval.	Regarding the reports, see additional responses provided for Topic # 22: Propagation study and justification. The Department suggests changing the proposal to require defining minimum functional height only for a tower more than 60 feet tall that requires a CUP. *17.530.030 D.3. "Except for small wireless facilities, a report describing the proposed facility with technical reasons for its design. The report shall describe ~~justify~~ the height, dimension, and location of the proposed facility."* Receiving building permit information later in the permit process can change the processing required for the permit. This can increase permit processing time beyond the allowed FCC shot clock. The County requires proof of authority when the property owner is not the applicant. If the authority is granted by a lease, then it should be provided. Authorizing documents not only ensures the County that the applicant has permission, but also provides an understanding of the long term requirements, such as buffer requirements. Proof of an agreement between a carrier and the applicant will reduce the potential of constructing facilities that may not be used (speculative building). Receiving lease information or agreements later in the permit process can change the processing required for the permit. This can increase permit processing time beyond the allowed FCC shot clock.	5: LV6 6: MP11, MP13, MP14 18

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12.	**P - remove or reduce the requirement to document efforts to collocate.** **17.530.030 E.2.** • Requirement to attempt collocation for non-tower and small wireless communication facilities is inconsistent with FCC rulings. • change requirement to attempt collocation from one (1) mile to one-half (½) mile. Network densification tends to require more sites at lower heights to add more capacity to a smaller area. Targeted search areas are now less than one mile.	The County requires a documented attempt to collocate to reflect the "collocation" first approach to new wireless facilities. The FCC ruling doesn't prohibit the County from requiring applicants to attempt collocation first. The proposal allows the construction of facilities after an applicant exhausts this option. This does not materially inhibit the construction of wireless facilities. However, the proposal only requires documented efforts to collocate for CUP applications. This and the Department suggested changes in Topic #11 remove the requirement to document collocation efforts for non-tower facilities, small wireless facilities, and tower facilities that do not require a conditional use permit (i.e., use of stealth technology). This change promotes the construction of facilities that will likely have a reduced visual impact.	5: LV7, LV22 18

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13.	**P - clarify fees by including language from the FCC ruling.** **17.530.030 F.**	A separate resolution establishes all permit fees as required by KCC Section 21.10.010. 'Fees' for land use development and procedures' states "All applications for permits or actions by the county shall be accompanied by a filing fee in an amount established by county resolution." The Department tracks its costs in reviewing permits and generally adopts a fee schedule each year to reflect updates. Thus, the County already complies with the FCC Order requirement on fees. Cost recovery is generally included in that process. However, the Department suggests changing the proposal to clarify the FCC ruling regarding fees. The language below reflects FCC 18-133 at ¶ 50. *17.530.030 F. "Fees. All applications for permits or requests for actions by the county shall be accompanied by a filing fee in an amount established by county resolution. Fees for small wireless facilities must be:* *1. a reasonable approximation of the County's costs.* *2. only objectively reasonable costs.* *3. no higher than the fees charged to similarly-situated competitors in similar situations."*	WCF 6: MP18
14.	**P - remove required response to requests for information.** **17.530.030 H.** Remove the requirement to respond within 30 days of receiving a request for information from the County.	The FCC rulings start a shot clock at the time of application. The ruling explicity states that the shot clock applies to all permits required to construct a facility. This provision intends to reduce the number of incomplete applications received by the county.	6

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15.	**P - add severability to batching.** **17.530.030 H.6.** Decisions for each application should be separate. The denial of one application should not mean the denial of the entire batch of applications.	A single batch of multiple applications yields only one permit number. Official denial requires denial of the permit, not an application within the permit. However, an application with an expected denial can be removed by the applicant from the permit.	5: LV9
16.	**P - revise permit expiration requirements.** **17.530.030 K.** • Permits should expire four years after issuance – not one year. This is consistent with existing Kitsap County standards. • Tangible process should be measured towards the application for a building permit, right-of-way permit, or other construction permit.	Kitsap County conditional use permits expire four years after issuance. Building permits for a wireless facility expire six months after issuance with an option to extend the permit for another six months. The proposal allows more time to construct a facility through the submittal of an extension. This extension requires an applicant to construct a facility or facilities within two years.	6: MP20 20
17.	**P - exempt small wireless facilities and collocated facilities from general development standards.** **17.530.040** FCC rule 6409, eligible facility requests, doesn't allow the County to apply these standards to collocations or small wireless facilities. The ruling only requires compliance with the substantial change criteria and building and safety codes. The remainder of local zoning codes do not apply. Compliance with FCC rule 6409 requires more exceptions than just A, B, and D (e.g., subsection E does not apply to eligible facility requests). Suggest describing what does apply to an "eligible facility request".	The FCC ruling related to Section 6409(a) of the Spectrum Act, 47 USC 1455(a), is FCC 14-153. The County reviewed this ruling and interprets it to allow not only the application of the substantial modification criteria in 47 CFR 1.40001 (now 47 CFR 1.6100), but also that the county may continue "to enforce and condition approval on compliance with generally applicable building, structural, electrical, and safety codes and with other laws codifying objective standards reasonably related to health and safety." FCC 14-153 at ¶188. The proposal intends to provide general and "objectively reasonable" wireless standards relating to concealment/aesthetics, lighting, noise, and other construction requirements. The ruling allows the County to apply these "objectively reasonable" general development standards when explicity stated in code.	6: MP11 18

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18.	**General Development Standards (GDS) - Revise measurement method for height.** **17.530.040 A.** Do no include lightning rods when measuring the height of a facility.	The Federal Aviation Administration (FAA) regulates lighting by structure height. The FAA definitions indicate that height measurement includes any structure that may be struck by an aircraft. Measuring height should include all elements of a wireless structure, including a lightning rod. The FAA website for Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) provides a: • General frequently asked questions (FAQ) sheet at https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp?action=generalFAQs *Question 11. For building proposals, what do I submit for the AGL height, just the building or any equipment/structures on top of the building?* *Response. The height above ground level should be the highest point, including any appurtenance or object on top of the building.* • Advisory Cirular Marking and Lighting frequently asked questions (FAQ) sheet at https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp?action=malFAQs *Question 18 and Question 19 directly reference lightning rods and include them in height calculations.*	6

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19.	**GDS - Revise requirements for visual appearance review.** **17.530.040 B.1.a.** • This provision violates the FCC ruling by effectively prohibiting small wireless facilities. • Only tower-based facilities located only in residential zones should require: o stealth technology or substantially screening. o visual analysis. • Allow photo simulations to replace balloon or crane tests.	Non-tower facilities and small wireless facilities can have visual impacts to surrounding uses. This provision implements comprehensive plan goals and policies by minimizing visual impacts. Steps taken to fully disguise a facility through stealth technology will likely reduce visual impacts to less than moderate. Photosimulations do not provide a realistic context for neighbors, primarily for large lattice towers or mono-poles that don't qualify for an ACUP. Balloon or crane simulations provide a more realistic depiction of tower height relative to surrounding trees and structures.	6: MP22, MP23 18
20.	**GDS - Revise definition of moderate visual impact and visually sensitive areas** **17.530.040 B.2.b.** More than a moderate visual impact is too vague. Section identifies almost all views in Kitsap County. This provision effectively prohibits towers anywhere in the county.	The proposal prohibits some facilities to implement the 2016 Comprehensive Plan Land Use Goal 13: Protect Kitsap County's unique rural character and Capital Facilities and Utilities Policy 11 to minimize visual impact. The proposal allows tower-based and non-tower based facilities with specific size limitations. An applicant may use stealth technology to disguise the facility as a tree, natural feature, or archictural feature consistent with the surroundings. These types of facilities reduce the visual impacts to less that moderate.	5: LV10 6: MP13 18
21.	**GDS - Revise requirement that effectively prohibits small wireless facilities.** **17.530.040 B.2.f** Prohibiting non-wireless facilities that cannot by fully enclosed may limit small wireless facilities with advanced ultra wideband technology. Antenna faces cannot be screened.	Shrouding requirements in 17.530.040 E. will reduce visual impacts for small wireless facilities to less than moderate. The Department suggests changing the proposal to exempt small wireless facilities. *17.530.040 B.2.f. "Except for small wireless facilities, a non-tower facility is proposed in a visually sensitive area and cannot be completely enclosed within the existing structure or camouflaged as another structure compatible with the surrounding environment."*	5: LV11 18

22.	**GDS - Remove requirements for propagation study, gap coverage, and justification of design.** **17.530.030 E.3.** **17.530.040 B.3.** **17.530.060 A.1.a.** **17.530.060 A.1.b.** **17.530.060 A.2.** **17.530.060 A.3.a.** **17.110.484** The 2018 FCC order doesn't allow the County to require justification to locate a facility or justify the height. The 9th Circuit significant gap in service test was rejected for all facilities in the latest FCC order. The County should align the language with the 10th circuit "materially inhibit" test. New facilities require significant capital investment. Providers propose facilities where a legitimate need exists. Customer demands and network performance establish the need. In Kitsap County, wireless coverage can provide a high capacity wireless network where landlines are cost prohibitive. Typical propagation maps don't include capacity deficits. A provider may have sufficient coverage yet insufficient capacity to serve its customers. Incentivize collocation and locating towers in preferred zones (e.g., commercial and industrial). Remove the definition and references to minimal functional height as it relates to propagation studies.	These provisions require coverage through antenna adjustments if possible instead of constructing a new tower that requires a CUP. The latest FCC Order, FCC 18-133, primarily addressed small wireless facilities and did not prohibit propagation or gap coverage studies for macrosite towers. The proposal exempts small wireless facilities from this requirement. The proposal intends to reduce the proliferation of unnecessary towers and preserve the rural aesthetic. SEPA requires additional review for towers taller than 60 feet. The Department suggests requiring gap coverage analysis and justification only for towers that require a CUP and will be more than 60 feet tall. This change allows the construction of all wireless facility types without requiring a propagation study. *17.530.030 E.3. "Propagation studies. The application shall include at least one propagation study that shows wireless coverage or capacity for a tower-based facility that exceeds sixty feet in height."* *17.530.060 A.1.a. "New tower-based facilities that exceed sixty feet in height and require a CUP are prohibited unless a propagation study shows coverage gaps cannot be filled through other means."* *17.530.060 A.1.b. "A new tower-based facility that requires a CUP and is within one mile of an existing wireless support structure may not exceed 40 feet in height unless collocation has been actually and reasonably considered…"* *17.530.060 A.2.a. "The location of a tower-based facility that exceeds sixty feet in height and requires a CUP shall be necessary to provide coverage for the gap…"* *17.530.060 A.2.b. The location shall be the least visually intrusive to the surrounding community or shall be the only viable location to provide coverage for ~~a~~the gap shown in a ~~the~~ propagation study, when required through section 17.530.030 E.3."*	5: LV24 - LV26 6: MP15, MP16, MP31, MP33, MP34 18, 20, 23

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		17.530.060 A.3.a. ~~The propagation study will state a minimum functional height necessary for a tower-based facility to fill a gap in coverage.~~ A tower-based facility shall be constructed to: *i. the minimum functional height when applicable. A propagation study, when required through section 17.530.030 E.3., will state a minimum functional height necessary for a tower-based facility to fill a gap in coverage.* *ii. not ~~to~~ exceed 40 feet taller than surrounding tree height.* *iii. ~~and~~ not ~~to~~ exceed 200 feet."*	
23.	**GDS - Revise or remove lighting section to allow artificial lighting.** **17.530.030 C.1.** This regulation effectively prohibits deployment of towers in large areas near airports. The height needed to achieve coverage and capacity objectives can trigger the requirement to artificially light the facility per Federal Aviation Administration (FAA) standards.	The proposal intends to prevent light pollution in Kitsap County and retain the rural character aesthetic. This provision implements many goals and policies intended to minimize the visual impact of development in the County. Towers can exceed the 200 foot height limitiaton above a 700 foot elevation and more than ½ mile from a residential area. This restricts taller towers to the Green Mountain area as the existing code allows.	5: LV12 6, 18

24.	**GDS - Revise or remove requirements for related equipment location and shrouding.** **17.530.040 E.** The FCC order contradicts the proposed location and shrouding requirements by establishing standards: • different than those applied to other similar infrastructure in the right of way. • With dimensions inconsistent with definition of small wireless facilities, FCC order 18-133 volume allowances. • That effectively prohibit deployment of small wireless facilities by requiring shrouding of antenna. • that don't allow for antenna tilt. The hills, trees, and other obstructions in Kitsap County may require tilting antenna to achieve the necessary coverage or capacity. These design standards are technically infeasible for macrosites and small wireless facilities. Replace with language provided (See WCF-21). • In nearly all cases a small wireless facility shroud must be larger than 14 inches. • Cut off switches cannot be placed in a locked radio enclosure. • Specifically allow T-mobile unified enclosure provided in the detailed comments. • Ensure that regulations allow standard types of facilities from all providers. Don't dictate the choice of equipment to the provider.	The County worked with members of the Washington Association of Telecommunication Officers and Advisors (WATOA) and the National Association of Telecommunication Officers and Advisors (NATOA) to determine antenna and shrouding dimensions. These organizations work with the National League of Cities to provide input for current and proposed wireless facility design standards. The proposal reflects these dimensions. The county interprets the FCC 18-133 ruling of "similar infrastructure" to mean other wireless providers, not other utilities. These provisions intend to affect small wireless facilities only. The dimensional standards for related equipment intend to disguise or hide the related equipment. Wireless facilities are regularly shown with shrouds or covers that hide the antenna and related equipment. The proposal provides a tiered approach towards shrouding a facility. The applicant can demonstrate at each tier that the shrouding requirements are infeasible. The Department suggests changing the proposal to clarify the application to only small wireless facilities, allow dyed film covers, 12 inch antenna offsets, and allow cut off switches to remain outside of the base shroud. Enclosures shown in the detailed comments fit within the related equipment dimensional standards. *17.530.040 E. "Related equipment for small wireless facilities."* *17.530.040 E.2. "Antennas and antenna elements unable to be enclosed within the facility require the applicant to demonstrate the inability to do so. In such cases, the antenna and antenna elements shall be within a shroud mounted at the top of the facility. An opaque cover (i.e., dyed film) may be used to cover the antenna face. The offset distance between an antenna and pole must not exceed 12 inches. The shroud and opaque cover~~facility. The shroud~~:"* *17.530.040 E.2.c. "Shall be cylindrical for pole facilities and match the pole shaft diameter, when feasible. The shroud diameter shall not exceed 16~~14~~ inches. Once transitioned from the support structure shaft, the shroud diameter shall remain consistent.*	WCF 5: LV13 - LV21 6: MP24 18, 20, 21, 23

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		17.530.040 E.4. "A base shroud shall fully enclose all remaining equipment located on the structure. This may include radios not mounted at top of structure, electric meters, and grounding equipment~~, and cut-off switches~~." The Department suggests changing the proposal to add a subsection to clarify related equipment design standards for non-small wireless facilities. *17.530.040 F. Related equipment for non-small wireless facilities.* *1. Antenna and antenna elements must match the support structure color, finish, and visually conceal all contents and/or wiring to the greatest extent possible.* *2. Remaining equipment must be placed underground, or enclosed and screened through stealth technology or fencing and landscaping in a screening buffer. The buffer requirement shall be contained in a recorded easement. Vegetation shall not be removed without approval by the department of community development. Fencing shall be a nonobtrusive material such as a dark coated chain link to blend in with the surroundings.*	
25.	**GDS - Remove requirement for engineer signed construction documents submittal with land use permit.** **17.530.040 G.**	Receiving building permit information later in the permit process can change the processing required for the permit. This can increase permit processing time beyond the allowed FCC shot clock. See response to Topic #11 ACUP permit requirements.	6: MP25
26.	**GDS - Remove interference regulations.** **17.530.040 I.** The FCC preempts the regulation of radio frequency interference.	The County reviewed the FCC rulings. The preemption is implied, not explicit, in federal law. However, the Department suggests changing the proposal and refer to FCC regulations. *17.530.040 I. Interference. Facilities shall comply with Federal Communication Commission regulations regarding interference. ~~not cause interference with:~~* *~~1. The county's radio frequency, wireless network, or Kitsap 911 (collectively "county operations").~~* *~~2. Other facilities or any FCC licensed devices.~~* *~~3. Any similar third-party equipment.~~*	6: MP26

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
27.	**GDS - Limit future cell site deployment to reduce Radio Frequency Emissions** **17.530.040 J.** These emissions are known to be harmful to humans. Please include strict safety guidelines to protect against radio frequency emissions. Multiple articles indicate potential deleterious health effects of radio frequency emissions to humans. Read the articles before adopting this code.	The County understands the concerns expressed in articles provided in comments. However, the Federal Communications Commission (FCC) rulings limit the County's ability to regulate new facilities regarding radiofrequency emissions. The proposal requires that radio frequency emission comply with federal guidelines in 17.530.040 (language provided below). *17.530.040 J. "Radio frequency emissions. The proposed facility, in conjunction with other facilities, shall not generate radio frequency emissions that exceed the standards and regulations of the FCC. These regulations include at least the FCC Office of Engineering Technology Bulletin 65 entitled "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields," as amended."* The FCC provides answers questions regarding radio frequency emission safety at https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety . The bulletin is available on the FCC website - https://www.fcc.gov/general/oet-bulletins-line navigate down the page to OET Bulletin 65. An ACUP and CUP require documentation that the proposed facility comply with radio frequency emissions. The Department suggests changing the proposal to require demonstrated compliance with radio frequency emissions when applying for a letter of exemption: *17.530.030 C.1. "All applications must include documentation that the proposed facility, in conjunction with other facilities, shall not generate radio frequency emissions that exceed the standards and regulations of the FCC."*	WCF 1, 4, 8, 10-16, 18, 24, 25

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
28.	**Non-Tower or small wireless facilities - above ground related equipment.** **17.530.050 B.2.a.** • Clarify this provision. Restricting related equipment to a height limitation should not apply to pole mounted equipment. Effectively prohibits small wireless facilities. • Eliminate inconsistencies and excessively restrictive provisions. • Code must allow facilities on existing utility poles taller than the allowed zone height.	The height limitation applies to related equipment located above ground. However, this section intends to regulate equipment not mounted or incorporated into the base of a pole. The Department suggests changing the proposal to: *17.530.050 B.2.a. "Height. Related equipment located above ground, not mounted to the facility support structure, in the public ROW…"*	5
29.	**Non-Tower, small wireless, and tower based facility regulations - clarify tree trimming requirements.** **17.530.050 B.4.** **17.530.060 B.5.** What are the industry standards? Will tree trimming requirements from this code supercede community design standards (e.g., Silverdale Design Standards).	Generally, small wireless facilities are sited to minimize tree trimming or removal. Sometimes the pole owner (often PSE) performs routine maintenance of vegetation in order to clear branches from the vicinity of the pole for installation of equipment and to leave the lines clear. Public works vegetation management program focuses actions that enhance travel safety for all modes of transportation. This program: • Maintains clear zones. • Removes danger trees. • Removes invasive species and plants that encroach into the road. The County's vegetation management program doesn't require a permit for utilities to clear or trim trees. Typically utilities maintain a ten foot perimeter around wires on utility poles in the right-of-way. The utility company acquires an easement when this ten foot maintenance perimeter extends onto private property. Likewise, trimming or removal of vegetation around a wireless facility will require an agreement with the owner of the tree or vegetation in question. These agreements must reflect county codes and community design standards.	PC comment

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
30.	**Tower-Based facility regulations - revise design and location restrictions.** **17.530.060 A.1.a.** **17.530.060 A.1.b.** • Setbacks should: o Account for the design of a breakoff point. o Measure from the base of a tower to the nearest building. The 110% setback is unnecessary and not a safety based standard. o Only apply in a residential context. • The county should incentivize locating a new tower-based facility in the ROW, including facilities within one mile of an existing facility. • Limiting a new tower-based facility in to 40 feet unless collocation has been reasonably considered within a one mile radius is: o arbitrary. o effectively prohibiting the installation of necessary wireless infrastructure. o unreasonably low given the trees in Kitsap County.	The 110% setback requirement directly relates to public health, safety, and welfare. Ice drop or other falling debris has the potential to impact a neighboring parcel to a distance of slightly more than the height of the tower. Kitsap County must consider future uses of adjacent parcels when developing setback standards. Measuring setbacks to existing buildings on adjacent parcels does not account for potential safety risks to all future development and land uses near a tower-based facility. The proposal incentivizes new tower-based facilities located within 500 feet of an existing tower-based facility by requiring an ACUP, not a CUP (see 17.530.030 A.). This provision includes tower-based facilities in the ROW. Current code requires a CUP for new tower-based facilities taller than 35 feet. In existing KCC section 17.530.060 , a CUP may be granted only if the application demonstrates: • Need for the new facility. • Documented collocation efforts and evidence that "no practical alternative is reasonably available to the applicant" within a one-mile radius. • Compliance with visual study where a proposed tower can be seen within one mile. The proposal allows tower-based facilities: • taller than 40 feet if no practical alternative is reasonably available within a one mile radius. • where existing code would prohibit the same facility.	5: LV24, 6: MP32, MP33

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
31.	**Tower-Based facility regulations - revise screening requirements.** **17.530.060 A.4.a** **17.530.060 A.7.c.** **17.530.060 A.8.c.** Allow fencing and/or landscaping to screen related equipment, not just stealth technology. Remove the requirement to screen 75% at the time of installation. This standard is unrealistic for a tower that needs to clear the treeline. Mature trees at 50-80 feet do not transplant well.	Land Use and Capital Facility goals and policies support the proposal's requirement to hide related equipment. Undergrounding and use of stealth technology (i.e., a large hollow boulder) are more effective than fencing and/or landscaping. The Department sugggests changing the proposal to allow fencing and or landscaping to screen related equipment. *17.530.060 A.4.a. "Ground-mounted related equipment associated, or connected, with a tower-based facility ~~shall be placed underground or screened from public view using stealth technologies~~ must be placed underground, or enclosed and screened through stealth technology or fencing and landscaping in a screening buffer. The buffer requirement shall be contained in a recorded easement. Vegetation shall not be removed without approval by the department of community development. Fencing shall be a nonobtrusive material such as a dark coated chain link to blend in with the surroundings."* The proposal requires 75% screening at the time of installation and only applies to towers that require a CUP (e.g., towers that don't use stealth technology to hide as a tree, natural feature, or structure). This requirement usually uses existing trees for screening. However, landscaping on the edges of a parcel can provide this screening element. This limits the facility height based conditions surrounding the proposed facility.	WCF 5: LV28 6
32.	**Tower-Based facility regulations - revise access easement requirement.** **17.530.060 A.8.c.** Copy of an access easement should only be required prior to the issuance of a building permit.	A CUP currently requires an access easement agreement as part of the permit. Land use review, including environmental and storm water, require the precise location of an access and the easement that authorizes it. Therefore, land use review must wait until the applicant provides an access easement. Because of shot clock limitations, the County requires all permit information be provided with the initial application.	6

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
33.	**Add new section: Adjustment to standards.** **17.530.090** Add an adjustments section for when compliance with standards would materially inhibit the provision of wireless services or when visual impacts can be minimized with such an adjustment. The typical variance criteria do not address the needs of a wireless facility and do not allow adjustment when needed under federal law. See KCMC 17.560.010 – "only when unusual circumstances relating to the property cause undue hardship in the application of this title."	An applicant may use the variance process in chapter 17.560 'Variances'. The code provides clearly stated design standards consistent with standards accepted by the carriers in other jurisdicitions. The proposal applies equally to any wireless infrastructure deployment. Local aesthetic requirements are not preempted (thus, would not materially inhibit) if they meet all three criteria: 1. The regulations are reasonable. 2. The regulations are no more burdensome that those applied to other types of infrastructure deployments. 3. The regulations are objective and published in advance. This means that they must incorporate clearly-defined and ascertainable standards.	6: MP35
34.	**Definitions - revise modification.** **17.110.494** Remove number (2) and (3) because: (2) is redundant (3) does not include the limitation on the applicability of previously imposed conditions (see last criterion for substantial change).	The proposal defines modification consistent with FCC rulings and minimizes the potential for misinterpretation. The definitions for "modification" and "substantial change" reinforce each other. *"Modification" means any change made to an existing wireless communications facility (facility). A modification constitutes a substantial change if (1) the change to the facility meets the definition of substantial change herein provided; (2) the change would defeat the existing concealment elements of the facility; or (3) the change does not comply with pre-existing conditions associated with the prior approval of construction or modification of the facility.*	6: MP36
35.	**Definitions - revise substantial change.** **17.110.708** Use the actual language provided by the federal CFR. The paraphrasing is not accurate and may create confusion and inconsistency.	The County paraphrased the CFR definition to reduce confusion by minimizing legal jargon. The County interprets the definition in the proposal as accurate.	5: LV29

PLANNING COMMISSION PUBLIC COMMENT MATRIX: SUMMARY AND RESPONSE			
Topic #	**Issue description and code reference**	**Department response or proposed change to draft code**	**Detailed Comment**
36.	**Definitions - revise tower and wireless communication facility definition.** **17.110.721** **17.110.770 C.** A small wireless facility should not be considered a tower. Multiple areas in the code will effectively prohibit small wireless facilities if they remain defined as a tower.	The Department suggests changing the proposal to reflect the comment. *17.110.721 "Tower" means any structure built for the sole or primary purpose of supporting one or more antennas and related equipment, including but not limited to, self-supporting lattice towers, guy towers and monopoles. This does not include small wireless facilities as defined in Section 17.110.070 A."* *17.110.770 C. A "tower-based wireless facility" means a facility installed or constructed with a Tower as defined in 17.110.721. Unless a DAS hub facility meets the definition of a small wireless facility, the DAS hub shall be considered a tower-based facility.*	5, 6, 18

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF-1	Jill F. Harris	Online Form	"DEAR FRIENDS, I don't mean legal permitting; I mean the knowledge-based permission of the citizens who will be exposed to 5G. 5G is being rolled out to serve the wireless technology companies and their financial gain, without considering the effects on human bodies. There is far too much scientifically proven information regarding 5G facts and extreme dangers to humans to try to attach, here.* Our human bodies are electrical systems. 5G is different from even 4G, and will be debilitatingly dangerous to our health, --messing with our brains, organs, very cells, and the delicate electrical systems that are part of a healthy body. *Please, for your own sake, take the time to Google "The dangers of 5G on the human body" and read/listen to what doctors and scientists are frantically trying to get the word out about. Consider, and determine for yourself if you want to be exposed to 5G. THANK YOU. Jill F. Harris"
WCF-2	Svetlana Skalican	Online Form	I think this is wonderful to see we are considering updated systems for Kitsap County. As a woman that feels safety is a big concern, having the ability to call a loved one at a moments notice, is super important. I also find it hard to use GPS in certain parts of Kitsap County. It feels awful driving somewhere I've never been to without any assistance from a map. I'm hoping that updating the infrastructure for our cell phones that we can get better coverage for those types of uses as well.
WCF-3	Athena Doctor	Online Form	We live in an area of Kitsap County that we refer to as “the boonies” because we do not have access to cable, high speed internet, or many wireless companies. In fact, there is only one company that has any type of coverage available at our home and even that is spotty. There are several “dead zones” in the area, which renders quick contact for emergency help non-existent in many places. We would like to see a wireless tower (and cable services) in our area. Is there a proposal for this in the Carney/Wye Lake area??
WCF-4	John Galt	Email	Do the county's Planning Commission, Commissioners, and county employees approving and implementing these technologies plan on accepting and maintaining liability for the damage that this technology will bring to the living condition? Can you please provide documented health risk discussion from citizens and officials regarding these programs and it's (seemingly unobstructed) implementation? Also, does the county really view Wikipedia as a source for factual, relevant information? Specifically, "click here" links emailed to subscribers? Thanks for your response.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF-5	Lelah Vaga	Email, letter, redline document	I understand that the public hearing has been postponed, but I did want to get you Verizon's comment letter and updated redline today. Both are attached. In general, we do find some sections of the proposed code to be in conflict with the most recent FCC order and that some provisions in the draft are not technically feasible for some kinds of wireless deployments. We very much appreciate the opportunity to provide input, and we appreciate all of the time and work that Kitsap County staff has been putting into this issue. We have often found that a stakeholder's meeting is a good way to work through the kinds of legal and technical concerns that we see in this draft code. In a stakeholder's meeting, staff would sit down with various members of the wireless industry, and representatives of the local utility to discuss the details of the code in a work session kind of format. It provides an opportunity to discuss the nuances in more detail and a forum for evaluating possible resolutions with the input of a wider group. It can also be a more efficient use of staff time than individual meetings. Verizon would like to encourage Kitsap County to hold a stakeholder's meeting to address the various industry concerns. We are also happy to help with the coordination of such a meeting if you feel it would useful.  WCF_5_Attach_Vaga_Lelah_Verizon_Let  WCF_5_Attach_Vaga_Lelah_Verizon_Spe
WCF-6	Meridee Pabst	Email, letter, redline document	"On behalf of AT&T, we have attached a comment letter and redlined suggested changes to proposed new KCC Chapter 17.530. Please forward this letter and redline to the Planning Commissioners for their consideration prior to Tuesday night's hearing."  WCF_6_Attach_Pabst_Meridee_ATT_Lette  WCF_6_Attach_Pabst_Meridee_ATT_Spec
WCF-7	Brian Moran	Online Form	This is a wrong-headed proposal with code language written to only address aesthetics, and does nothing to improve or promote access to the under served of Kitsap County, and would in effect discriminate against rural access.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF-8	Marcia J. Stocking	Letter	Please add the letter sent on January 2, 2019 to the record.  WCF_8_Attach_Stocking_Marcia_2019_0
WCF-9	Linda Atkins	Online Form	On behalf of T-Mobile, there are numerous material concerns with the draft code proposed for this evening's public hearing. Detailed comments are being prepared and will be submitted prior to the close of the public comment period on February 26. We would ask the planning commission to not move the current draft forward until all public comments have been evaluated and addressed.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF-010 Through WCF-017	Marcus Collier	Online Form	https://www.healthnutnews.com/prominent-biochemistry-professor-warns-5g-is-the-stupidest-idea-in-the-history-of-the-world/ Should the county decide to install these technologies, there will liability against the county and its boards that allow this. https://www.radiationhealthrisks.com/5g-cell-towers-dangerous/ https://thefreethoughtproject.com/cell-phone-5g-cancer-concerns/ The details, expert testimonies, and supporting documents contained herein should be sufficient for the county to cease this projects forward movement until such that adequate time has been employed to understand the dangers. https://www.activistpost.com/2019/01/congressional-house-committee-investigates-fcc-for-collusion-in-re-5g-small-cell-tower-legislation-which-eliminated-local-control-over-installation.html Please review the video from UN Secretary-General on the subject; as well, please note the 20 footnotes by various professionals and others that were sourced for this piece. https://www.collective-evolution.com/2019/01/06/un-staff-member-whistleblower-5g-is-a-global-health-catastrophe/?fbclid=IwAR2LtZIXdO3Vt2rHyjx0iMqPVVePxZix7dILOwvB89r0JAQPb0PfGpNWScc https://youtu.be/j-UEuOYOED4 WCF_11-16_Attach_Collier_Marcus_Scie
WCF - 018	Linda W. Atkins	Email	These comments on the proposed wireless ordinance update are submitted on behalf of T-Mobile. WCF_18_Attach_Atkins_Linda_TMobile_2

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF – 019	Doug Rauch	Email	Bellevue is reviewing the use of small cell equipment on light poles instead of towers. It takes more but they are not as intrusive. See picture in attachment. FCC is still working on amount county/city can charge. WCF_19_Attach_Rauch_Doug_2019_02(

WCF – 020	Carol Tagayun	Email	Dear Commissioner Gelder, I'm contacting you regarding wireless technology in Kitsap County. As you already know, wireless technology has become ingrained into the lifestyles of most consumers. The new generation has largely grown up with wireless technology. On AT&T's network, we've seen a 360,000% growth in data use since 2007. Residents, and businesses, have an insatiable demand for wireless, and cell phones are critical in emergencies when consumers rely on their devices most. Over 80% of 911 calls now originate from wireless phones making wireless communications a public safety necessity. To satisfy growing demand, AT&T continuously upgrades the network, including deploying new technologies such as Small Cells, to add capacity, and to move the network toward 5G services, and beyond. Over the past few month, the Kitsap County Planning Commission has been discussing a new overall Wireless Communications Facility Code. We support the County's efforts to update the code. AT&T, and other industry representatives, have been participating in the Planning Commission meetings and code discussions. We have submitted comments and expressed concerns over a number of the requirements. We want to alert you about proposed code language that would negatively impact our ability to provide Kitsap County residents with reliable wireless coverage and capacity, which they have come to depend on. We have three main concerns with the proposed code: • It is inconsistent with federal law. For example, the County is adding a test to prove a "significant gap" that is now superseded by an FCC order. Other Washington jurisdictions are updating their codes to remove this outdated test. • Makes substantial departures from existing County policy without explanation. For instance, the County's current practice, and how it treats other land use approvals, is to approve new facilities conditioned on submittal of an application for building or construction permit within four years. Requiring that construction be completed within one year, as the proposed new code would, is unreasonable. Wireless approvals should be issued with the same duration as other land use approvals. • Sets unnecessarily difficult and unreasonable standards. For example, the proposed code extends what are clearly small wireless facility design standards to all wireless facilities. These standards are far too restrictive for small wireless standards and completely impossible for macro facilities. We would like to discuss language that is workable and allows industry to build wireless facilities that will serve the community's communications needs. I would be honored to share an update on AT&T's plans for Kitsap County. Would it be possible to schedule a meeting to discuss our concerns? Please let me know. Thank you for your attention to this matter.
WCF – 21	Lelah	Email	Here is the proposed equipment concealment language that we discussed on Friday.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
	Vaga		Related equipment. The visual effect of the small wireless facility on all aspects of the appearance of the pole shall be minimized to the greatest extent possible. 1. Antennas and the associated equipment enclosures shall be sited and installed in a manner which minimizes the visual impact on the streetscape either by fully concealing the antennas and associated equipment fully within the pole or shroud, or through a concealment method which provides a similar reduction in visual impact. This requirement shall be applied in a manner which does not dictate the technology employed by the service provider nor unreasonably impair the technological performance of the equipment chosen by the service provider. 2. Antennas and antenna elements unable to be enclosed within the facility or within a canister on the facility are allowed if the antennas match the support structure color, finish, and conceal cabling and wiring connections, to the greatestextent possible. 3. Each antenna may not exceed 3 cubic feet in volume. 4. All related equipment shall be placed in an equipment enclosure not exceed 28 cubic feet is mounted within six (6) inches from the surface of the pole, unless a further distance is technically required, and is confirmed in writing by the pole owner. The equipment enclosure shall match the support structure's color and finish to the greatest extent possible and shall be the minimum size needed to enclose the required equipment.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**

WCF-22	Alan Bar	Verbal Testimony	• Representing Verizon Wireless
			• Greatly appreciates technical nature of the code and opportunity to work with the County
			• Grew up in this area, doesn't want to see the proliferation of unsightly installations but wireless sites are needed to keep up with current technology
			• A large demand for wireless technology is already here, demand will only increase
			• Kids are using these devices to learn outside of school. Children are writing code and using drones which depend on wireless technology
			• Written statements were provided
			• Question and answer with planning commission:
			  • Do agreements allow for collocations on small wireless facilities? Not really.
			  • Kitsap County code requirements to shroud interferes with the technology. Stealth technology applications to small wireless facility antenna is limited. No paint, but a dyed film cover can work.
			  • What are the industry standards for tree trimming? Typically trees and other obstructions are considered when locating a facility such that tree trimming or removal is not required. When necessary this would default to right-of-way trimming maintenance and utility pole maintenance
			  • Can a small wireless facility locate on a private structure? Yes. Utility poles in the right-of-way are preferable
			  • Batching. How many applications are likely to be batched in a permit? Verizon would identify a polygon to serve, such as an area in Silverdale, for which approximately 12-16 applications would be batched in a permit.

PLANNING COMMISSION PUBLIC COMMENT MATRIX: DETAILED COMMENTS			
Reference #	**Name**	**Comment Type**	**Comment (with attachments or links)**
WCF-23	Carol Tagayun	Verbal Testimony	• Representing AT&T • Greatly appreciates opportunity to work with the County and the ability to have a stakeholder meeting prior to adoption of the code. • 300,000% growth on existing data net with the release of iphone. • Significant gap test applies to coverage not capacity. An area with coverage from a provider can still be an underserved area because the capacity within that coverage is insufficient. • Now is the time to build. We need to deploy facilities now to expand 4G and prepare for 5G. • Suggest adopting design standards that account for future technology similar to other jurisdictions. The related equipment and shrouding requirements don't allow for flexibility between carriers. • Batching permit example in Seattle, 13 applications batched in a permit.

WCF-24	Tamara Smilovich	Verbal Testimony	• Heard from people that work for the companies on the east side of the water, providing a voice for the residents on Kitsap Peninsula.
			• Real estate agent. People are moving to Kitsap County:
			  • to get away from the towers on every corner. Due to visual impacts and cancer caused by EMF radiation.
			  • for the natural beauty.

WCF-25	David Sisteen	Verbal Testimony	• Significant safety concerns. Read the articles, research the health risks associated with EMF radiation. • Asking the County to hold off, don't adopt code yet, look at the studies first.

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Presidential Documents

Title 3—

The President

Executive Order 13186 of January 10, 2001

Responsibilities of Federal Agencies To Protect Migratory Birds

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in furtherance of the purposes of the migratory bird conventions, the Migratory Bird Treaty Act (16 U.S.C. 703–711), the Bald and Golden Eagle Protection Acts (16 U.S.C. 668–668d), the Fish and Wildlife Coordination Act (16 U.S.C. 661–666c), the Endangered Species Act of 1973 (16 U.S.C. 1531–1544), the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347), and other pertinent statutes, it is hereby ordered as follows:

Section 1. *Policy.* Migratory birds are of great ecological and economic value to this country and to other countries. They contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries. The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds. Such conventions include the Convention for the Protection of Migratory Birds with Great Britain on behalf of Canada 1916, the Convention for the Protection of Migratory Birds and Game Mammals-Mexico 1936, the Convention for the Protection of Birds and Their Environment- Japan 1972, and the Convention for the Conservation of Migratory Birds and Their Environment-Union of Soviet Socialist Republics 1978.

These migratory bird conventions impose substantive obligations on the United States for the conservation of migratory birds and their habitats, and through the Migratory Bird Treaty Act (Act), the United States has implemented these migratory bird conventions with respect to the United States. This Executive Order directs executive departments and agencies to take certain actions to further implement the Act.

Sec. 2. *Definitions.* For purposes of this order:

(a) ''Take'' means take as defined in 50 C.F.R. 10.12, and includes both ''intentional'' and ''unintentional'' take.

(b) ''Intentional take'' means take that is the purpose of the activity in question.

(c) ''Unintentional take'' means take that results from, but is not the purpose of, the activity in question.

(d) ''Migratory bird'' means any bird listed in 50 C.F.R. 10.13.

(e) ''Migratory bird resources'' means migratory birds and the habitats upon which they depend.

(f) ''Migratory bird convention'' means, collectively, the bilateral conventions (with Great Britain/Canada, Mexico, Japan, and Russia) for the conservation of migratory bird resources.

(g) ''Federal agency'' means an executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.

(h) ''Action'' means a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a Federal agency. Each Federal agency will further define what the term ''action'' means with respect to its own authorities and what programs should be included

in the agency-specific Memoranda of Understanding required by this order. Actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with Federal assistance, are not subject to this order. Such actions, however, continue to be subject to the Migratory Bird Treaty Act.

(i) ''Species of concern'' refers to those species listed in the periodic report ''Migratory Nongame Birds of Management Concern in the United States,'' priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 C.F.R. 17.11.

Sec. 3. *Federal Agency Responsibilities.* (a) Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.

(b) In coordination with affected Federal agencies, the Service shall develop a schedule for completion of the MOUs within 180 days of the date of this order. The schedule shall give priority to completing the MOUs with agencies having the most substantive impacts on migratory birds.

(c) Each MOU shall establish protocols for implementation of the MOU and for reporting accomplishments. These protocols may be incorporated into existing actions; however, the MOU shall recognize that the agency may not be able to implement some elements of the MOU until such time as the agency has successfully included them in each agency's formal planning processes (such as revision of agency land management plans, land use compatibility guidelines, integrated resource management plans, and fishery management plans), including public participation and NEPA analysis, as appropriate. This order and the MOUs to be developed by the agencies are intended to be implemented when new actions or renewal of contracts, permits, delegations, or other third party agreements are initiated as well as during the initiation of new, or revisions to, land management plans.

(d) Each MOU shall include an elevation process to resolve any dispute between the signatory agencies regarding a particular practice or activity.

(e) Pursuant to its MOU, each agency shall, to the extent permitted by law and subject to the availability of appropriations and within Administration budgetary limits, and in harmony with agency missions:

(1) support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;

(2) restore and enhance the habitat of migratory birds, as practicable;

(3) prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable;

(4) design migratory bird habitat and population conservation principles, measures, and practices, into agency plans and planning processes (natural resource, land management, and environmental quality planning, including, but not limited to, forest and rangeland planning, coastal management planning, watershed planning, etc.) as practicable, and coordinate with other agencies and nonfederal partners in planning efforts;

(5) within established authorities and in conjunction with the adoption, amendment, or revision of agency management plans and guidance, ensure that agency plans and actions promote programs and recommendations of comprehensive migratory bird planning efforts such as Partners-in-Flight, U.S. National Shorebird Plan, North American Waterfowl Management Plan, North American Colonial Waterbird Plan, and other planning efforts, as well as guidance from other sources, including the Food and Agricultural

Organization's International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries;

(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern;

(7) provide notice to the Service in advance of conducting an action that is intended to take migratory birds, or annually report to the Service on the number of individuals of each species of migratory birds intentionally taken during the conduct of any agency action, including but not limited to banding or marking, scientific collecting, taxidermy, and depredation control;

(8) minimize the intentional take of species of concern by: (i) delineating standards and procedures for such take; and (ii) developing procedures for the review and evaluation of take actions. With respect to intentional take, the MOU shall be consistent with the appropriate sections of 50 C.F.R. parts 10, 21, and 22;

(9) identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts;

(10) within the scope of its statutorily-designated authorities, control the import, export, and establishment in the wild of live exotic animals and plants that may be harmful to migratory bird resources;

(11) promote research and information exchange related to the conservation of migratory bird resources, including coordinated inventorying and monitoring and the collection and assessment of information on environmental contaminants and other physical or biological stressors having potential relevance to migratory bird conservation. Where such information is collected in the course of agency actions or supported through Federal financial assistance, reasonable efforts shall be made to share such information with the Service, the Biological Resources Division of the U.S. Geological Survey, and other appropriate repositories of such data (e.g, the Cornell Laboratory of Ornithology);

(12) provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds and conserving and restoring migratory bird habitat;

(13) promote migratory bird conservation in international activities and with other countries and international partners, in consultation with the Department of State, as appropriate or relevant to the agency's authorities;

(14) recognize and promote economic and recreational values of birds, as appropriate; and

(15) develop partnerships with non-Federal entities to further bird conservation.

(f) Notwithstanding the requirement to finalize an MOU within 2 years, each agency is encouraged to immediately begin implementing the conservation measures set forth above in subparagraphs (1) through (15) of this section, as appropriate and practicable.

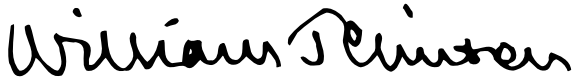
(g) Each agency shall advise the public of the availability of its MOU through a notice published in the **Federal Register**.

Sec. 4. *Council for the Conservation of Migratory Birds.* (a) The Secretary of Interior shall establish an interagency Council for the Conservation of Migratory Birds (Council) to oversee the implementation of this order. The Council's duties shall include the following: (1) sharing the latest resource information to assist in the conservation and management of migratory birds; (2) developing an annual report of accomplishments and recommendations related to this order; (3) fostering partnerships to further the goals of this order; and (4) selecting an annual recipient of a Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.

(b) The Council shall include representation, at the bureau director/administrator level, from the Departments of the Interior, State, Commerce, Agriculture, Transportation, Energy, Defense, and the Environmental Protection Agency and from such other agencies as appropriate.

Sec. 5. *Application and Judicial Review.* (a) This order and the MOU to be developed by the agencies do not require changes to current contracts, permits, or other third party agreements.

(b) This order is intended only to improve the internal management of the executive branch and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.



THE WHITE HOUSE,
January 10, 2001.

[FR Doc. 01–1387
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FEDERAL COMMUNICATIONS COMMISSION
FACT SHEET: MIGRATORY BIRDS
May 12, 2016

MIGRATORY BIRDS AND THEIR LEGAL PROTECTION

A bird is migratory if it spends its nonbreeding season (winter) in a different area than its breeding season (spring and summer). Many North American migratory birds breed in the boreal and temperate forests of North America and winter in Mexico or Central America. The Arctic Tern migrates the farthest distance annually, approximately 44,000 miles round trip. Bird migration corridors describe the geographic distribution of bird migration routes, mostly for migrating waterfowl (e.g., ducks and geese). Migrating songbirds (e.g., warblers, thrush, many sparrows) tend to migrate at night in broader fronts or flocks hundreds of miles wide.

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone "**to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof."** *See* 16 U.S.C. § 703(a). Species protected are listed in 50 C.F.R. § 10.13.

The Commission recognizes that the effects that communications facilities may have on migratory birds should be considered as part of the tower operator's pre-construction review under the National Environmental Policy Act (NEPA; https://apps.fcc.gov/edocs_public/attachmatch/DOC-312921A1.pdf). Presently, an Environmental Assessment is required when the height of an antenna structure will be greater than 450 feet above ground level. *See* 47 C.F.R. § 1.1307, Note to paragraph (d).

HUMAN ACTIVITIES THAT THREATEN MIGRATORY BIRDS

Vegetation removal, mowing, predation (e.g., cats), pesticides, and collisions with vehicles, transmission wires, windows, wind turbines and communications towers can harm or kill birds and their nestlings, and destroy their nests.

Given the long distances that birds travel during migration, daily refueling stops are critical. These stopover sites for migrant birds are especially critical on either end of large water crossings, such as over the Gulf of Mexico. Development along the Gulf Coast has decreased availability of these stopover habitats.

Relevant to the charge of the FCC, the lights of tall structures can attract night migrating birds, which can lead to collisions with tower structures and guy wires as well as exhaustion from the

birds' circling towers. Birds also may collide with tower guy wires and utility lines during their daily movements

CHOICES THAT CAN MINIMIZE OR PREVENT ADVERSE IMPACTS TO MIGRATORY BIRDS

Tower constructors and operators have many opportunities to reduce or prevent the effects that towers can have on migratory birds. Importantly, many of the measures taken to protect birds also reduce costs.

Before construction begins:

- **Use tower lighting systems without steady-burning side makers (L-810 lights).** Birds are attracted to non-flashing red lights, such as L-810 side-marker lights, and are much less attracted to flashing lights on towers, such as L-864 and L-865 lights. When planning the construction of your tower, consider using tower light systems without steady-burning side-markers (L-810). Additional information on the bird-friendly lighting systems is here: http://wireless.fcc.gov/migratory-birds/Light_Changes_Information_Update_120415.pdf

- **Use motion-sensor security lighting instead of constant illumination at night.** The elimination of continuously burning security lights minimizes bird attraction to the site and reduces energy costs. Tower operators can use motion sensor-triggered security lighting, which promotes tower safety and reduces the possibility of attracting migratory birds.

- **Locate facilities at previously disturbed sites.** Developers have opportunities to minimize the elimination and disturbance of vegetation by constructing on already disturbed sites, such as agricultural fields or developed sites, instead of removing natural, native vegetation.

- **Use existing roads, instead of developing new roads**. Using or improving existing roads minimizes costs and land disturbance. When a new road is necessary, there are ways to minimize its impact. For example, in forested habitats, the tree canopy might be allowed to remain, thereby minimizing changes in forest temperature and sun exposure in habitat.

- **Consider using bird flight diverters on tower guy wires and above-ground utility wires.** Bird flight diverters are spherical or ribbon-like objects attached to guy wires or utility wires. Diverters make the obstructions more visible to birds and allow them to avoid collisions with wires. Studies have found the number of birds colliding with marked utility lines to be 50% to 80% lower than the numbers of birds colliding with unmarked utility lines. While no independent published studies have specifically examined the effectiveness of bird flight diverters on reducing bird collisions with communications tower guy wires, many natural resource regulators recommend installing bird flight diverters on communications tower guy wires, especially if the tower is sited near wetlands, rare bird populations, raptor migration areas, or other high bird concentration areas. Diverters should be spaced 15 feet apart on towers less than 100 feet in height and 30 feet apart on towers more than 100 feet in height.

- **Contact regional and local natural resource agencies for site-specific information.** Regional and local natural resource agencies may have additional site-specific suggestions and ideas to reduce adverse impacts to migratory birds.

During construction:

- **Avoid construction during the nesting season.** Birds are more likely to abandon nest areas if disturbed during the nesting season. Most bird nesting occurs in late April-July in the lower 48 states.
- **Encourage growth of native plant species instead of invasive species.** During and after construction activities, developers can encourage the regrowth of native plant species by seeding cleared areas with native seeds and prevent the spread of invasive plant species by washing the wheels of construction vehicles (http://www.fs.fed.us/eng/pubs/pdf/05511203.pdf). Guy wire lanes and service roadsides can be planted with low-maintenance native shrubs or grasses. Plantings that exclude taller, less manageable vegetation also reduce maintenance costs and provide habitat for birds, butterflies and other wildlife (https://archive.epa.gov/greenacres/web/html/factsht.html). Regional and local natural resource agencies may have additional site-specific suggestions for replanting native, low-maintenance species that may benefit birds, butterflies, and other wildlife.

After construction:

- **Avoid mowing and brush removal during the nesting and active seasons (circa April – September).** Many migratory birds nest in grassy areas and shrubs. Removing or mowing this vegetation damages nests and kills nestlings. Mowing can also cause fatalities or injury to rare tortoises, turtles and snakes, such as the Gopher Tortoise, Wood Turtle, and Indigo Snake. If tower sites require mowing, it is preferable to do so in October through March when the birds are not nesting and many tortoises, turtles, and snakes are hibernating (also called brumating in reptiles). If possible, set the mower height to 12-18 inches to prevent tortoise and turtle collisions and to leave some cover for birds and other wildlife.

- **Avoid removing or disturbing nests during nesting season.**

Sources of additional information:

Bird Biology and Laws

http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtintro.html (accessed 5/12/16)

http://www.fws.gov/laws/lawsdigest/migtrea.html (accessed 5/12/16)

http://www.stateofthebirds.org/ (accessed 5/12/16)

https://apps.fcc.gov/edocs_public/attachmatch/DOC-312921A1.pdf (accessed 5/12/16)

Ways to Reduce Risk to Birds and other Wildlife

http://wireless.fcc.gov/migratory-birds/Light_Changes_Information_Update_120415.pdf (accessed 5/12/16)

Avian Power Line Interaction Committee (APLIC). 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012.* Edison Electric Institute and APLIC. Washington, D.C. http://www.aplic.org/uploads/files/11218/Reducing_Avian_Collisions_2012watermarkLR.pdf (accessed 5/12/16).

Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife. 2009. Mowing Advisory Guidelines in Rare Turtle Habitat: Pastures, Successional Fields, and Hayfields. http://www.mass.gov/eea/docs/dfg/nhesp/species-and-conservation/mowing-guidelines.pdf (accessed 5/12/16).

http://www.dnr.state.mn.us/roadsidesforwildlife/index.html (accessed 5/12/16)

Native Plants

https://archive.epa.gov/greenacres/web/html/factsht.html (accessed 5/12/16)

http://www.fs.fed.us/eng/pubs/pdf/05511203.pdf (accessed 5/12/16)

KEY WORDS: migratory birds, collisions, nesting, MBTA, tower lights, habitat, vegetation, security lighting, mowing, bird flight diverters, spacing, wetlands, visibility, native species, mower height, tortoise, turtle, snake, invasive species, endangered species

United States Department of the Interior

OFFICE OF THE SOLICITOR
Washington, D.C. 20240

IN REPLY REFER TO:

DEC 22 2017

M- 37050

Memorandum

To: Secretary
Deputy Secretary
Assistant Secretary for Land and Minerals Management
Assistant Secretary for Fish and Wildlife and Parks

From: Principal Deputy Solicitor Exercising the Authority of the Solicitor Pursuant to Secretary's Order 3345

Subject: The Migratory Bird Treaty Act Does Not Prohibit Incidental Take

I. Introduction

This memorandum analyzes whether the Migratory Bird Treaty Act, 16 U.S.C. § 703 ("MBTA"), prohibits the accidental or "incidental" taking or killing of migratory birds. Unless permitted by regulation, the MBTA prohibits the "taking" and "killing" of migratory birds. "Incidental take" is take that results from an activity, but is not the purpose of that activity.

This issue was most recently addressed in Solicitor's Opinion M-37041 – *Incidental Take Prohibited Under the Migratory Bird Treaty Act*, issued January 10, 2017 (hereinafter "Opinion M-37041"), which concluded that "the MBTA's broad prohibition on taking and killing migratory birds by any means and in any manner includes incidental taking and killing."[1] Opinion M-37041 was suspended pending review on February 6, 2017.[2] In light of further analysis of the text, history, and purpose of the MBTA, as well as relevant case law, this memorandum permanently withdraws and replaces Opinion M-37041.

Interpreting the MBTA to apply to incidental or accidental actions hangs the sword of Damocles over a host of otherwise lawful and productive actions, threatening up to six months in jail and a $15,000 penalty for each and every bird injured or killed. As Justice Marshall warned, "the value of a sword of Damocles is that it hangs—not that it drops."[3] Indeed, the mere threat

[1] 2017 DEP SO LEXIS 6, *2.

[2] Memorandum from K. Jack Haugrud, Acting Secretary, to Acting Solicitor, Temporary Suspension of Certain Solicitor M-Opinions Pending Review, 2017 DEP SO LEXIS 8 (Feb. 6, 2017).

[3] *Arnett v. Kennedy*, 416 U.S 134, 231 (1974) (Marshall, J., dissenting).

of prosecution inhibits otherwise lawful conduct. For the reasons explained below, this Memorandum finds that, consistent with the text, history, and purpose of the MBTA, the statute's prohibitions on pursuing, hunting, taking, capturing, killing, or attempting to do the same apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.[4]

II. The Evolution of the Migratory Bird Treaty Act

a. The Historical Context of the Treaty

In the late 19th and early 20th centuries, bird hunting devastated migratory bird populations. According to the U.S. Fish and Wildlife Service ("FWS"), "[b]y the late 1800s, the hunting and shipment of birds for the commercial market (to embellish the platters of elegant restaurants) and the plume trade (to provide feathers to adorn lady's fancy hats) had taken their toll on many bird species."[5] The scope of commercial hunting at the turn of the century is hard to overstate. One author, describing hunters descending upon a single pigeon nesting ground, reported "[h]undreds of thousands, indeed millions, of dead birds were shipped out at a wholesale price of fifteen to twenty-five cents a dozen."[6] Director of the New York Zoological Society and former chief taxidermist at the Smithsonian William Hornaday estimated that "in a single nine-month period the London market had consumed feathers from nearly 130,000 egrets"[7] and that "[i]t was a common thing for a rookery of several hundred birds to be attacked by plume hunters, and in two or three days utterly destroyed."[8] Further, commercial hunting was not limited to traditional game birds—estimates indicated that 50 species of North American birds were hunted for their feathers in 1886.[9] Thus, largely as a result of commercial hunting, several species, such as the Labrador Ducks, Great Auks, Passenger Pigeons, Carolina Parakeets, and Heath Hens were extinct or nearly so by the end of the 19th century.[10]

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[4] This memorandum recognizes that this interpretation is contrary to the prior practice of this Department. As explained below, the past expansive assertion of federal authority under the MBTA rested upon a slim foundation—one that ultimately cannot carry its weight. Neither the plain language of the statute nor its legislative history support the notion that Congress intended to criminalize, with fines and potential jail time, otherwise lawful conduct that might incidentally result in the taking of one or more birds.

[5] U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[6] Andrew G. Ogden, *Dying for a Solution: Incidental Taking Under the Migratory Bird Treaty Act*, 38 WM. & MARY ENVLT. L. & POL'Y REV. 1, 5 n.12 (Fall 2013) (quoting PETER MATTHIESSEN, WILDLIFE IN AMERICA 159-60 (1987)).

[7] William Sounder, *How Two Women Ended the Deadly Feather Trade*, SMITHSONIAN MAGAZINE, Mar. 2013, *available at* http://www.smithsonianmag.com/science-nature/how-two-women-ended-the-deadly-feather-trade-23187277/?all.

[8] *Id.*

[9] *Id.*

[10] Jesse Greenspan, *The Evolution of the Migratory Bird Treaty Act*, AUDUBON, May 22, 2015, *available at* http://www.audubon.org/news/the-evolution-migratory-bird-treaty-act.

Congress adopted the "first federal law protecting wildlife"—the Lacey Act of 1900[11]—in part in response to the threat that commercial hunting posed to wild birds.[12] The Lacey Act sought to limit the damaging effects of commercial hunting by prohibiting game taken illegally from being transported across state lines.[13]

Unfortunately, "the [Lacey] Act was ineffective in stopping interstate shipments."[14] Thus, in 1913 Congress followed the Lacey Act with two legislative actions. First, Congress included language in an appropriations bill directly aimed at limiting the hunting of migratory birds.[15] Better known as the "Weeks-McLean Law,"[16] this language gave the Secretary of Agriculture authority to regulate hunting seasons nationwide for migratory birds:

> All wild geese, wild swans, brant, wild ducks, snipe, plover, woodcock, rail, wild pigeons, and all other migratory game and insectivorous birds which in their northern and southern migrations pass through or do not remain permanently the entire year within the borders of any State or Territory, shall hereafter be deemed to be within the custody and protection of the Government of the United States, and shall not be destroyed or taken contrary to regulations hereinafter provided therefor.
>
> The Department of Agriculture is hereby authorized and directed to adopt suitable regulations . . . prescribing and fixing closed seasons . . . and it shall be unlawful to shoot or by any device kill or seize and capture migratory birds within the protection of the law during said closed season . . . .[17]

Second, the Senate adopted a resolution on July 7, 1913, requesting that the President "propose to the Governments of other countries the negotiation of a convention for the protection and preservation of birds."[18]

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[11] U.S. Fish and Wildlife Service, Lacey Act, *available at* https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/lacey-act.html (last visited Oct. 18, 2017). *See generally* 16 U.S.C. §§ 3371–3378; 18 U.S.C. §§ 42–43.

[12] *See* U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[13] *Id.*

[14] *Id.*

[15] Act of March 4, 1913, ch. 145, 37 Stat. 828, 847–48 (repealed 1918).

[16] U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[17] Act of March 4, 1913, ch. 145, 37 Stat. 828, 847–48 (repealed 1918).

[18] SENATE JOURNAL, 63rd Cong. 1st Sess. 108 (Apr. 7, 1913).

For its time, this was an expansive assertion of federal authority over activities previously viewed as the exclusive purview of the states. Less than 20 years earlier, the Supreme Court declared that states owned wild game within their territories.[19] As a result, the Weeks-McLean Law came under Constitutional challenge almost immediately. Little more than a year after its passage, the district court for the Eastern District of Arkansas in *United States v. Shauver* ruled that "[t]he court is unable to find any provision in the Constitution authorizing Congress, either expressly or by necessary implication, to protect or regulate the shooting of migratory wild game when in a state, and is therefore forced to the conclusion that the act is unconstitutional."[20] The district court for Kansas echoed the same less than a year later.[21] By 1917, the Weeks-McLean Law had been declared unconstitutional by two state supreme courts and three federal district courts, with an appeal pending before the Supreme Court of the United States.[22]

b. The Migratory Bird Treaty of 1916

In light of the Constitutional cloud hanging over Weeks-McLean Law, proponents of nationwide hunting regulations turned to a novel Constitutional theory: under the Treaty Power, the federal government acted with the authority of the United States in a way that Congress, acting on its own accord, could not, placing treaties and accompanying implementing legislation on a different Constitutional footing than traditional laws.[23] This theory was invoked by Senator Elihu Root in proposing the 1913 Senate resolution calling for a migratory bird treaty:

> [I]t may be that under the treaty-making power a situation can be created in which the Government of the United States will have constitutional authority to deal with this subject. At all events, that is worthy of careful consideration, and for that purpose I open it by the offer of this resolution.[24]

As described by the Solicitor's Office for the Department of Agriculture:

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[19] *Geer v. Connecticut*, 161 U.S. 519 (1896).

[20] *United States v. Shauver*, 214 F. 154, 160 (E.D. Ark. 1914).

[21] *United States v. McCullagh*, 221 F. 288 (D. Kan. 1915).

[22] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 25 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture) ("There were three Federal courts, two State supreme courts; the Maine and Kansas supreme courts have declared [the Weeks-McLean Law] unconstitutional. In the eastern district of Arkansas Judge Trieber declared it unconstitutional; in the district of Kansas Judge Pollock declared it unconstitutional; and in the district of Nebraska Judge Lewis, of Colorado, who was sitting in place of one of the regular judges, sustained a motion in arrest of judgment. . . . They all followed the first decision in the eastern district of Arkansas. . . . The government removed the Arkansas case—the Shauver case—to the Supreme Court direct.").

[23] *See generally Missouri v. Holland*, 252 U.S. 416 (1920) (using this reasoning to uphold the MBTA's constitutionality).

[24] 51 Cong. Rec. 8349 (1914).

> Text-writers assert this doctrine, that the President, and the Senate, exercising the treaty making power, have a right to negotiate a treaty, and Congress has the right to pass an act to fulfill that treaty, although Congress, acting without any such treaty, would not have the power to legislate upon that subject. That is what text-writers say.[25]

In this way, proponents of hunting restrictions contended that Congress could overcome the Constitutional concerns that had derailed the Weeks-McLean Law and pass legislation asserting federal authority over wild game founded upon an international treaty.[26]

Against this backdrop the United States and the United Kingdom—acting on behalf of Canada—entered into the "Convention between the United States and Great Britain for the protection of migratory birds."[27] With the stated intent of "saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless,"[28] the Convention specified groups of birds to be protected,[29] and obligated the parties to:

- Establish "close[d] seasons during which no hunting shall be done except for scientific or propagating purposes under permits issued by proper authorities" that would serve "as an effective means of preserving migratory game birds;"[30]

- Prohibit the "taking of nests or eggs of migratory game or insectivorous or nongame birds . . . except for scientific or propagating purposes;"[31]

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[25] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 25 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture).

[26] *See* William S. Haskell, *Treaty Precludes Further Question as to Constitutionality of Migratory Bird Law*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, Oct. 1, 1916, at 4 ("The Canadian treaty precludes further question as to the constitutionality of the federal migratory bird law. It therefore makes it unnecessary to bring the case now pending in the United States Supreme Court to argument."). Consistent with this new approach, when the *Shauver* case was called on the Supreme Court's docket in October 1916, "the Attorney General moved that the case be passed." Hearings Before the Committee on Foreign Affairs, House of Representatives, Sixty-Fourth Congress, Second Session, on H.R. 20080 (Statement of R.W. Williams, Esq., Solicitor's Office, Department of Agriculture) at 25 (Feb. 3, 1917).

[27] Convention between the United States and Great Britain for the Protection of Migratory Birds, 39 Stat. 1702 (Aug. 16, 1916) (ratified Dec. 7, 1916) (hereinafter "Migratory Bird Treaty").

[28] *Id.*, chapeau.

[29] *Id.*, art. I.

[30] *Id.*, art. II.

[31] *Id.*, art. V.

- Prohibit during a closed season the "shipment or export of migratory birds or their eggs" except for scientific or propagating purposes;[32]

- Establish a "continuous close[d] season" for a series of specific, enumerated birds for a period of ten years;[33]

- Establish a continuous closed season of five years, refuges, or other appropriate regulations for the protection of certain types of duck;[34] and

- Provide for the issuance of permits to kill the specified birds.[35]

Under Article VIII of the Convention, the parties agreed to "take, or propose to their respective appropriate law-making bodies, the necessary measures for insuring the execution" of the Convention.[36]

c. Implementing the Treaty

1. The Migratory Bird Treaty Act of 1918

In order to fulfill the United States' obligations under Article VIII, Congress in effect reenacted a stricter version of the 1913 Weeks-McLean Law by passing what came to be known as the "Migratory Bird Treaty Act."[37] As originally passed, the MBTA provided:

> That unless and except as permitted by regulations made as hereinafter provided, it shall be unlawful to hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time or in any manner, any migratory

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[32] *Id.*, art. VI.

[33] *Id.*, art. III.

[34] *Id.*, art. IV.

[35] *Id.*, art. VII.

[36] *Id.*, art. VIII.

[37] Migratory Bird Treaty Act, ch. 128, 40 Stat. 755 (1918) (codified as amended at 16 U.S.C. § 703–12). When asked to compare the terms of MBTA with those of the 1913 Weeks-McLean Law, Mr. E.W. Nelson, the Chief of the Bureau of Biological Survey at the Department of Agriculture, noted that the main difference was that the Weeks-McLean Law did not give the Biological Survey power to arrest violators. Hearings Before the Committee on Foreign Affairs, House of Representatives, Sixty-Fourth Congress, Second Session, on H.R. 20080 (Statement of Mr. E. W. Nelson, Chief Bureau of Biological Survey, Department of Agriculture, Washington, D.C.) at 5 (Feb. 3, 1917). He went on to note that "[t]he second paragraph, I think, is practically the same as exists in our federal law." *Id.* at 9.

bird, included in the terms of the convention between the United States and Great Britain for the protection of migratory birds concluded August sixteenth, nineteen hundred and sixteen, or any part, nest, or egg of any such bird.[38]

Violation of MBTA was a misdemeanor criminal offense, punishable by a fine of no more than $500 and/or up to six months in jail.[39] This time, relying in part on the federal treaty power, the legislation survived constitutional scrutiny.[40]

2. The Migratory Bird Conservation Act

Subsequently, in 1929, Congress sought to "more effectively meet the obligations of the United States under the migratory bird treaty with Great Britain" by adopting the Migratory Bird Conservation Act.[41] The Migratory Bird Conservation Act created a commission to make recommendations to the Secretary of Agriculture, who was authorized to purchase or rent lands approved by the commission "for use as inviolate sanctuaries for migratory birds."[42] Thus, by the late 1920s, Congress had adopted two laws to implement the Migratory Bird Treaty: the MBTA, which protected birds from the specific acts described in that statute, and the Migratory Bird Conservation Act, which protected birds by establishing protected habitats.

d. Additional International Treaties and Implementing Legislation

In 1936, the United States entered into another international agreement to "protect the said migratory birds . . . in order that the species may not be exterminated," the "Convention between the United States of America and Mexico for the protection of migratory birds and game mammals."[43] As with the Migratory Bird Treaty, the Mexico Treaty focused primarily on hunting, calling for the establishment of "close[d] seasons, which will prohibit in certain periods of the year the taking of migratory birds,"[44] in addition to explicitly mandating the establishment of refuges, limiting hunting to a maximum of four months, prohibiting hunting from aircraft, establishing special protections for insectivorous birds and wild duck, enumerating a list of

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[38] MBTA § 2 (codified as amended at 16 U.S.C. § 703).

[39] *Id.* § 6 (codified as amended at 16 U.S.C. § 707).

[40] *See Missouri v. Holland*, 252 U.S. 416 (1920).

[41] Migratory Bird Conservation Act, ch, 257, 45 Stat. 1222 (1929) (codified as amended at 16 U.S.C. § 715–715s).

[42] *Id.* § 5 (codified as amended at 16 U.S.C. § 715d). The Migratory Bird Conservation Act has since been amended several times. *See* Wetlands Loan Extension Act of 1976, Pub. L. No. 94-215, 90 Stat. 189; Act of Oct. 30, 1978, Pub. L. No. 95-552, 92 Stat. 2071; Fish and Wildlife Improvement Act of 1978, Pub. L. 95-616, 92 Stat. 3110; Act of Dec. 2, 1983. Pub. L. No. 98-200, 97 Stat. 1378; "An Act to extend the Wetlands Loan Act," Act of Oct. 26, 1984, Pub. L. No. 98-2772, 98 Stat. 2774; Emergency Wetlands Resources Act of 1986, Pub. L. 99-645, 100 Stat. 3582.

[43] Convention between the United States of America and Mexico for the Protection of Migratory Birds and Game Mammals, chapeau, 50 Stat. 1311 (Feb. 7, 1936) (ratified Mar. 15, 1937) (hereinafter "Mexico Treaty").

[44] *Id.*, art. II(A).

specific migratory birds, and limiting the transport of migratory birds across the U.S.-Mexico border.[45]

In order to implement the Mexico Treaty, Congress adopted legislation amending the MBTA.[46] Among other changes, these amendments:

- Added the word "pursue" to the list of operative actions;
- Moved the phrase "by any means" to the beginning of the clause; and
- Moved the phrase "at any time or in any manner" to follow "by any means."[47]

The United States entered into two additional treaties concerning migratory birds. The first, in 1972 with Japan, prohibited the "taking of migratory birds or their eggs" and called for the establishment of refuges, provided for the exchange of research data, and set criteria for hunting seasons.[48] Implementing legislation extended restrictions on any part, nest, or egg of any bird to include "any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest, or egg thereof."[49]

Second, in 1978 a U.S.-Soviet treaty prohibited the "taking of migratory birds, the collection of their nests and eggs and the disturbance of nesting colonies," limited the sale of migratory birds or products derived from them, placed limits on hunting, and called for the protection of habitats.[50] Implementing legislation did not amend Section 2 of the MBTA.[51]

The treaties with Canada and Mexico were amended in the mid-to-late 1990s. First, in 1995, the United States and Canada signed the Protocol Amending the 1916 Convention for the Protection of Migratory Birds.[52] According to the Secretary of State, the goal of this protocol

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[45] *Id.*, arts. II-IV. The Convention specifically prohibits killing of insectivorous birds unless they are damaging agricultural crops. *See id.*, art. II(E). The Mexico Treaty also limited the transport of other game mammals. *See id.*, art. V.

[46] Act of June 20, 1936, ch. 634, 49 Stat. 1555 ("Mexico Treaty Act").

[47] *Compare* MBTA, 40 Stat. 755, § 2 *with* Mexico Treaty Act, 49 Stat. 1555, § 3.

[48] Convention Between the Governments of the United States of America and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction, and Their Environment, 25 U.S.T. 3329 (Sep. 19, 1974).

[49] Act of June 1, 1974, Pub. L. No. 93-300, 88 Stat. 190.

[50] Convention between the United States of America and the Union of Soviet Socialist Republics Concerning the Conservation of Migratory Birds and Their Environment, 29 U.S.T. 4647 (Oct. 13, 1978).

[51] *See* Fish and Wildlife Improvement Act of 1978, Pub. L. No. 95-616, sec. 3(h), 92 Stat. 3110.

[52] Protocol Between the Government of the United States of America and the Government of Canada Amending the 1916 Convention Between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the United States, 1995 WL 877199 (signed Dec. 14, 1995) *reprinted in* S. Treaty Doc. No.

was to "bring the Convention into conformity with actual practice and Canadian law" concerning traditional subsistence hunting by aboriginal people of Canada and indigenous people in Alaska and "to permit the effective regulation for conservation purposes of the traditional hunt."[53]

Second, in 1997, the United States and Mexico signed a corresponding Protocol to "permit the full implementation" of the Canada Protocol.[54] The Mexico Protocol "conform[ed] the Canadian and Mexican migratory bird conventions in a manner that [] permit[ed] legal and regulated spring/summer subsistence hunt in Canada and the United States,"[55] and was necessary in order to allow the Department of the Interior to adopt regulations permitting spring/summer hunts in Alaska without violating the Mexico Treaty.[56]

The Canada and Mexico Protocols were considered interrelated, and were generally considered jointly by the United States Senate.[57] Thus, ratification of both agreements was

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104-28 at 1. This Protocol was intended to replace a similar protocol between the United States and Canada that was signed in 1979 but never ratified. *See* Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Aug. 2, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at iii ("The Protocol would replace a protocol with a similar purpose, which was signed January 30, 1979, (Executive W, 96th Cong., 2nd Sess. (1980)), and which I, therefore, desire to withdraw from the Senate.").

[53] Letter of Submittal from Warren Christopher, Secretary of State, to William J. Clinton, President of the United States (May 20, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at v ("The 1916 Convention for the Protection of Migratory Birds in Canada and the United States ('the Convention') presently does not permit hunting of the migratory species covered under the Convention from March 10 to September 1 except in extremely limited circumstances. Despite this prohibition, aboriginal people of Canada and indigenous people in Alaska have continued their traditional hunt of these birds in the spring and summer for subsistence and other related purposes. In the United States, the prohibition against this traditional hunt has not been actively enforced. In Canada, as a result of recent constitutional guarantees and judicial decisions, the Canadian Federal Government has recognized a right in aboriginal people to this traditional hunt, and the prohibition has not been enforced for this reason. The goals of the Protocol are to bring the Convention into conformity with actual practice and Canadian law, and to permit the effective regulation for conservation purposes of the traditional hunt.").

[54] Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Sept. 15, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at iii; *see also* Protocol Between the Government of the United States of America and the Government of the United Mexican States Amending the Convention for the Protection of Migratory Birds and Game Mammals (signed May 5, 1997), *reprinted in* S. Treaty Doc. No. 105-26.

[55] Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Sept. 15, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at iii.

[56] *See* Letter of Submittal from Madeleine Albright, Secretary of State, to William J. Clinton, President of the United States (Aug. 27, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at vii ("The Mexico Protocol is needed in order for the United States to be able to implement the Canada Protocol. That Protocol, which similarly addresses the issue of the spring and summer hunt, is pending before the Senate. The spring/summer harvest provisions in the Canada Protocol as they apply to wild ducks cannot be implemented in the United States until the 1936 U.S.-Mexico Convention permits such a harvest of wild ducks. As a matter of U.S. domestic law, the Department of the Interior may not implement a provision of one convention that allows a hunt prohibited by the provision of another . . . .").

[57] *See, e.g.*, S. EXEC. REP. NO. 105-5 (1997), *available at* https://www.congress.gov/congressional-report/105th-congress/executive-report/5/1 (discussing the Canada Protocol and Mexico Protocol together in the same document).

advised by the Senate on October 23, 1997 and ratified by the President September 9, 1999.[58] In both cases, the Secretary of State advised that no additional statutory authority was required to implement the protocols,[59] and none was adopted.[60]

e. Additional Legislative Developments

Separately from implementation of the United States' treaty responsibilities, in 1960 Congress amended the MBTA to make the taking of any migratory bird with the intent to sell or barter such bird, to sell or barter any migratory bird, or to attempt to do the same a felony, punishable by a fine of up to $2,000 and/or imprisonment of up to two years.[61] Congress also provided for the forfeiture of all "guns, traps, nets and other equipment, vessels, vehicles, and other means of transportation used by any person" when violating the MBTA with the intent to offer for sale or barter any such migratory bird.[62]

Over the next several decades, Congress made several revisions to the MBTA in response to judicial decisions. In 1985, the Court of Appeals for the Sixth Circuit in an appeal of the dismissal of an MBTA indictment held that the felony provision adopted in 1960 was an unconstitutional violation of the defendant's due process rights.[63] As a result, Congress amended the felony provision, limiting it only to "knowing" violations.[64]

In 2002, the district court for the District of Columbia held that live-fire military training exercises that unintentionally killed migratory birds within the training area violated the

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[58] *See* CHRISTIAN L. WIKTOR, TREATIES SUBMITTED TO THE UNITED STATES SENATE: LEGISLATIVE HISTORY, 1989-2004 at 172–74, 226–27, *available at* https://books.google.com/books?id=0IUBb901Uq8C&pg=PA226&lpg=PA226&dq=ratification+of+protocol+migratory+bird+and+game+treaty+with+mexico&source=bl&ots=kwIMRSkB28&sig=PmNXa6WM4PzbI7mtMbk7F_C2e4c&hl=en&sa=X&ved=0ahUKEwjO5-bh6LnWAhWJ24MKHZyjB_MQ6AEIVTAJ#v=onepage&q=ratification%20of%20protocol%20migratory%20bird%20and%20game%20treaty%20with%20mexico&f=false.

[59] Letter of Submittal from Warren Christopher, Secretary of State, to William J. Clinton, President (May 20, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at ix ("No additional statutory authority would be required to implement the Protocol."); Letter of Submittal from Madeline Albright, Secretary of State, to William J. Clinton, President of the United States at VI (Aug. 27, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at vi ("No additional statutory authority is required to implement the Mexico Protocol.").

[60] *See* WIKTOR, *supra* note 58 ("No additional statutory authority was required to implement the protocol.").

[61] Act of Sept. 8, 1960, Pub. L. No. 86-732, 74 Stat. 866.

[62] *Id.*

[63] *United States v. Wulff*, 758 F.2d 1121 (6th Cir. 1985).

[64] Emergency Wetlands Resources Act of 1986, Pub. L. No. 99-645, sec. 501, 100 Stat. 3582, 3590–91. Congress also subsequently eliminated strict liability for baiting, limiting the MBTA's ban on taking migratory birds with the aid of bait to instances where "the person knows or reasonably should know that the area is baited." *See* Migratory Bird Treaty Reform Act of 1998, Pub. L. No. 105-312, sec. 102(2), 112 Stat. 2956. This Act also increased the maximum fine for misdemeanor violations from $500 to $15,000. *Id.* § 103.

MBTA.[65] Following the court's ruling, Congress adopted legislation, though it was not an amendment of the MBTA itself, excluding "the incidental taking of a migratory bird by a member of the Armed Forces during a military-readiness activity authorized by the Secretary of Defense or the Secretary of the military department concerned" from the MBTA's restrictions on killing or taking migratory birds.[66]

III. The Current State of the Law

a. The Migratory Bird Treaty Act

Section 2 of the MBTA provides:

> Unless and except as permitted by regulations made as hereinafter provided, *it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill*, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, *any migratory bird, any part, nest, or egg of any such bird*, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916, the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972[,] and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976.[67]

U.S. Fish and Wildlife Service general wildlife regulations, promulgated to implement a number of statutes, including the MBTA, define the term "take" as: "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect."[68] For purposes of the MBTA, this definition subsumes a number of actions in the statute under the umbrella of "take."

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[65] *Ctr. for Biological Diversity v. Pirie*, 191 F. Supp. 2d 161 (D.D.C. 2002), *vacated on other grounds sub nom. Ctr. for Biological Diversity v. England*, 2003 App. LEXIS 1110 (D.C. Cir. 2003).

[66] Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, Div. A, Title III, § 315, 116 Stat. 2509 (2002), *reprinted in* 16 U.S.C.A. § 703, Historical and Statutory Notes; *see also* 50 C.F.R. § 21.15 (authorizing take incidental to military-readiness activities).

[67] 16 U.S.C. § 703 (2017) (emphasis added); *see also* 50 C.F.R. § 10.13 (list of applicable migratory birds).

[68] 50 C.F.R. § 10.12.

The phrase "incidental take" does not appear in either the MBTA or regulations implementing the Act. The U.S. Fish and Wildlife Service Manual provision issued in response to the now-withdrawn Opinion M-37041 defines "incidental take" as "take of migratory birds that directly and foreseeably results from, but is not the purpose of, an activity."[69] The manual further defines the term "kill" to include "any action that directly and foreseeably causes the death of a migratory bird where the death of the migratory bird is not the purpose of the action."[70] Due to the overlap of these definitions as they pertain to take, as used herein, the term "incidental take" refers to both takings and/or killings that directly and foreseeably result from, but are not the purpose of, an activity.[71]

Violations of the MBTA are criminal offenses. In general, violations of the MBTA are misdemeanor offenses, punishable by imprisonment of no more than six months, a fine of no more than $15,000, or both.[72] However, a felony offense arises by knowingly (1) taking a migratory bird with the intent to sell, offer to sell, or barter the bird, or (2) selling, offering to sell, bartering, or offering to barter a migratory bird; a felony is punishable by imprisonment for no more than two years, a fine of no more than $2,000, or both.[73] Taking a bird with the aid of bait if the person knows or reasonably should know that the area is baited is punishable by a fine, up to one year in prison, or both.[74] "All guns, traps, nets and other equipment, vessels, vehicles, and other means of transportation" used when violating the MBTA with the "intent to offer for sale, or sell, or offer for barter, or barter such bird" are to be forfeited to the United States.[75]

Courts have held that misdemeanor violations of the MBTA are strict-liability offenses.[76] Accordingly, if an action falls within the scope of the MBTA's prohibitions, it is a criminal

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[69] U.S. FISH AND WILDLIFE SERVICE MANUAL, part 720, ch. 3, *Incidental Take Prohibited Under the Migratory Bird Treaty Act* (Jan. 11, 2017).

[70] *Id.*

[71] This interpretation covers a nearly limitless range of otherwise lawful conduct as well as actions that may be crimes under other environmental statutes.

[72] 16 U.S.C. § 707(a).

[73] *Id.* § 707(b).

[74] *Id.* § 707(c).

[75] *Id.* § 707(d).

[76] *See, e.g., United States v. CITGO Petroleum Corp.*, 801 F.3d 477, 488 (5th Cir. 2015) ("The act imposes strict liability on violators, punishable by a maximum $15,000 fine and six months imprisonment."); *United States v. Apollo Energies, Inc.*, 611 F.3d 679, 686 ("As a matter of statutory construction, the 'take' provision of the Act does not contain a scienter requirement."); *United States v. Boynton*, 63 F.3d 337, 343 (4th Cir. 1995) ("Since the inception of the Migratory Bird Treaty in the early part of this century, misdemeanor violations of the MBTA, including hunting in a baited area, have been interpreted by the majority of the courts as strict liability crimes, not requiring the government to prove any intent element."); *United States v. Engler*, 806 F.2d 425, 431 (3d Cir. 1986) ("Scienter is not an element of criminal liability under the Act's misdemeanor provisions."); *United States v. Catlett*, 747 F.2d 1102, 1104 (6th Cir. 1984) ("The majority view, and the view of this circuit, is that . . . the crime is a strict liability offense."). *But see United States v. Sylvester*, 848 F.2d 520, 522 (5th Cir. 1988) ("Unique among the

violation, regardless of whether the violator acted with intent. Felony violations, however, require knowledge.[77] As one court noted, "[l]ooking first at the language of the MBTA itself, it is clear that Congress intended to make the unlawful killing of even one bird an offense."[78] At times the Department of Justice has taken the position that the MBTA permits charges to be brought for each and every bird taken, notwithstanding whether multiple birds are killed via a single action or transaction.[79]

b. Judicial Decisions Regarding Incidental Take

This Opinion is not written on a blank legal slate. Beginning in the 1970s, federal prosecutors began filing criminal charges under the MBTA against persons, including oil, gas, timber, mining, and chemical companies, whose activities "incidentally" resulted in the death of migratory birds.[80] In response, courts have adopted different views on whether Section 2 of the MBTA prohibits incidental take, and, if so, to what extent. Courts of Appeals in the Second and Tenth Circuits, as well as district courts in at least the Ninth and District of Columbia Circuits, have held that the MBTA criminalizes some instances of incidental take, generally with some form of limiting construction. By contrast, Courts of Appeals in the Fifth, Eighth, and Ninth Circuits, as well as district courts in the Third and Seventh Circuits, have indicated that it does not.[81]

Circuits, we require a minimum level of scienter as a necessary element for an offense under the MBTA."). As noted above, there is language in *CITGO* suggesting that the Fifth Circuit now considers the MBTA to be a strict-liability statute.

[77] *See* 16 U.S.C. § 707(b); *see also United States v. Wulff*, 758 F.2d 1121 (6th Cir. 1985).

[78] *United States v. Corbin Farm Serv.*, 444 F. Supp. 510, 529 (E.D. Cal. 1978), *aff'd*, 578 F.2d 259 (9th Cir. 1978).

[79] Robert S. Anderson & Jill Birchell, *Prosecuting Industrial Takings of Protected Avian Wildlife*, U.S. ATT'YS' BULL. July 2011, at 65, 68 ("Prosecutors and agents are often left to decide how many separate charges should be filed—one per bird, one per species, one per incident, one per site? Virtually all of these parsings have been used in past cases. *See, e.g.*, *United States v. Apollo Energies*, 611 F.3d 679, 683 (10th Cir. 2010) (one count per inspection that discovered dead birds); *United States v. Corbin Farm Services*, 578 F.2d 259, 260 (9th Cir. 1978) (one count per transaction that resulted in bird deaths); *United States v. FMC Corp.*, 572 F.2d 902, 903 (2d Cir. 1978) (one count per species per day); *United States v. Rogers*, 367 F.2d 998, 999 (8th Cir. 1966) (one count per day); *United States v. Fleet Management, Ltd.*, No. 3:08-CR-00160 (N.D. Cal. 2010) (one count per discharge); *United States v. Exxon Corp.*, No. A90-015 CR (D. Alaska Feb. 27, 1990); *United States v. Equity Corp.*, Cr. No. 75-51 (D. Utah Dec. 8, 1975) (one count per bird). Most of these cases are resolved by plea agreement, without litigation regarding the unit of prosecution."). *But see Corbin Farm Serv.*, 444 F. Supp. at 527–31 (E.D. Cal. 1978) (dismissing nine out of ten counts against the defendants on multiplicity grounds), *aff'd*, 578 F.2d 529 (9th Cir. 1978).

[80] Jesse Greenspan, *The Evolution of the Migratory Bird Treaty Act*, AUDUBON, May 22, 2015, *available at* http://www.audubon.org/news/the-evolution-migratory-bird-treaty-act; *see also United States v. FMC Corp.*, 572 F. 2d 902 (2d Cir. 1978); *Corbin Farm Serv.*, 444 F. Supp. 510.

[81] The Court of Appeals for the Ninth Circuit distinguished without explicitly overturning an earlier district court decision concerning incidental take.

i. Courts Extending the MBTA to Include Incidental Take

Cases that have applied the MBTA to the incidental taking of migratory birds generally rely upon a combination of two courts of appeals and two district court cases, beginning with *United States v. FMC Corporation.* In *United States v. FMC Corporation*, the Second Circuit upheld a conviction of a corporation stemming from the death of a number of birds after coming into contact with water tainted by that corporation's manufacture of pesticides.[82] The court found that "[i]mposing strict liability on FMC in this case does not dictate that every death of a bird will result in imposing strict criminal liability on some party."[83] The court further stated that the application of criminal liability to all instances of incidental take "would offend reason and common sense."[84] Nevertheless, analogizing FMC's criminal liability under the MBTA to the imposition of strict liability for the manufacture of dangerous products in civil tort law,[85] the court reasoned that FMC violated the MBTA because it "engaged in an activity involving the manufacture of a highly toxic chemical; and FMC failed to prevent this chemical from escaping into the pond and killing birds."[86]

At about the same time, the Eastern District of California reached a similar result by applying the MBTA to the deaths of birds resulting from pesticides.[87] According to the court, "[w]hen dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment and to other persons."[88] The court went on to adopt a *de facto* negligence standard, noting "[i]f defendants acted with reasonable care or if they were powerless to prevent the violation, then a very different question would be presented."[89]

In *United States v. Moon Lake Electric Association, Inc.*, the federal district court for Colorado held that the MBTA extended beyond conduct associated with hunting and poaching to criminalize the deaths of birds resulting from contact with Moon Lake's power lines.[90] In doing so, the court acknowledged that "[w]hile prosecutors necessarily enjoy much discretion, proper construction of a criminal statute cannot depend upon the good will of those who must enforce it."[91] The court went on to identify "an important and inherent limiting feature of the MBTA's

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[82] 572 F.2d 902 (2d Cir. 1978).

[83] *Id.* at 908.

[84] *Id.* at 905.

[85] *Id.* at 907.

[86] *Id.* at 908.

[87] *Corbin Farm Serv.* 444 F. Supp. 510.

[88] *Id.* at 536.

[89] *Id.*

[90] 45 F. Supp. 2d 1070, (D. Colo. 1999).

[91] *Moon Lake*, 45 F. Supp. 2d at 1084.

misdemeanor provision: to obtain a guilty verdict under § 707(a), the government must prove proximate causation," where proximate cause "is generally defined as 'that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the accident could not have happened, if the injury be one which might be *reasonably anticipated or foreseen as a natural consequence of the wrongful act.*'"[92]

The Tenth Circuit in *United States v. Apollo Energies, Inc.* followed a similar proximate-cause analysis in upholding a conviction under the MBTA for birds that were killed after becoming lodged in oil-drilling equipment.[93] According to the court, "[c]entral to all of the Supreme Court's cases on the due process constraints on criminal statutes is foreseeability – whether it is framed as a constitutional constraint on causation and mental state or whether it is framed as a presumption in statutory construction."[94] In context, the court clarified that "[w]hat is relevant . . . is what knowledge the defendants had or should have had of birds potentially dying in their heater-treaters."[95] Thus, for the court in *Apollo Energies*, incidental take is within the scope of the MBTA when defendants have or should have knowledge that their conduct may kill or injure migratory birds, and it does so.

ii. Courts Limiting the MBTA to Exclude Incidental Take

Courts holding that the MBTA does not extend to incidental take generally trace their roots to the Ninth Circuit's ruling in *Seattle Audubon Society v. Evans.* The court in *Seattle Audubon* held that the MBTA did not criminalize the death of birds caused by habitat destruction.[96] According to the court, the regulatory definition of "take" "describes the physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918."[97] The court went on to compare "take" under the MBTA, and its applicable regulatory definition, with the broader statutory definition of "take" under the Endangered Species Act, which includes "harm":

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[92] *Id.* (quoting BLACK'S LAW DICTIONARY 1225 (6th ed. 1990)) (emphasis in original).

[93] 611 F.3d 679 (10th Cir. 2010). Prior to the court's ruling in *Apollo Energies*, at least one district court in the Tenth Circuit ruled that the MBTA did not apply to incidental take. In *United States v. Ray Westall Operating, Inc.*, 2009 U.S. Dist. LEXIS 130674 (D.N.M. 2009), the district court for the District of New Mexico held that the death of migratory birds resulting from contact with a pit containing overflow discharge from an oil-production site was not a criminal act under the MBTA. According to the court, "[t]here is no language in the MBTA expressly extending the prohibition against killing migratory birds to acts or omissions that are not directed at migratory birds but which may indirectly kill migratory birds." *Id.* at *17–18. Rather, the court found "that it is highly unlikely that Congress intended to impose criminal liability on every person that indirectly causes the death of a migratory bird" and concluded "that Congress intended to prohibit only conduct directed towards birds and did not intend to criminalize negligent acts or omissions that are not directed at birds, but which incidentally and proximately cause bird deaths." *Id.* at *19.

[94] *Apollo Energies*, 611 F.3d at 690 (citations omitted).

[95] *Id.* at 690 n.5.

[96] 952 F.2d 297, 303 (9th Cir. 1991).

[97] *Id.* at 302.

> We are not free to give words a different meaning than that which Congress and the Agencies charged with implementing congressional directives have historically given them . . . . Habitat destruction causes "harm" to the [birds] under the [Endangered Species Act] but does not "take" them within the meaning of the MBTA.[98]

The court further distinguished actions leading "indirectly" to the death of birds, such as habitat destruction, from actions that lead directly to the death of birds, such as exposing birds to a highly toxic pesticide, leaving open whether the law reaches the later conduct.[99]

Building upon *Seattle Audubon*, the district court in *Mahler v. United States Forest Service* held that the cutting of trees by the U.S. Forest Service that could destroy migratory bird nesting areas did not violate the MBTA,[100] ruling "[t]he MBTA was designed to forestall hunting of migratory birds and the sale of their parts" and "declin[ing] [the] invitation to extend the statute well beyond its language and the Congressional purpose behind its enactment."[101] In response to plaintiff's motion to alter or amend judgment, the court reaffirmed that the MBTA did not reach the Forest Service's activity, holding "[p]roperly interpreted, the MBTA applies to activities that are intended to harm birds or to exploit harm to birds, such as hunting and trapping, and trafficking in bird and bird parts. The MBTA does not apply to other activities that result in unintended deaths of migratory birds."[102]

The Eighth Circuit in *Newton County Wildlife Association v. United States Forest Service* likewise rejected a claim that the destruction of forests containing migratory birds violated the MBTA.[103] Citing to *Seattle Audubon* and *Mahler*, among other cases, the *Newton County* court held:

> [I]t would stretch this 1918 statute far beyond the bounds of reason to construe it as an absolute criminal prohibition on conduct, such as timber harvesting, that *indirectly* results in the death of migratory birds. Thus, we agree with the Ninth Circuit that the ambiguous terms "take" and "kill" in 16 U.S.C. § 703 mean "physical conduct of the sort engaged in by hunters and poachers . . . ."[104]

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[98] *Id.* at 303.

[99] *Id.* at 303 ("Courts have held that the Migratory Bird Treaty Act reaches as far as direct, though unintended, bird poisoning from toxic substances. . . . The reasoning of those cases is inapposite here. These cases do not suggest that habitat destruction, leading indirectly to bird deaths, amounts to the 'taking' of migratory birds within the meaning of the Migratory Bird Treaty Act.").

[100] 927 F. Supp. 1559 (S.D. Ind. 1996).

[101] *Id.*

[102] *Mahler v. United States Forest Service*, 927 F. Supp. 1559, 1579 (S.D. Ind. 1996).

[103] 113 F. 3d 110 (8th Cir. 1997).

[104] *Id.* at 115 (quoting *Seattle Audubon*, 952 F.2d at 302) (emphasis in original). Contemporaneously, *Newton County* was echoed by the district court for the Western District of Pennsylvania in *Curry v. United States Forest*

Following *Newton County* as "controlling precedent," the court in *United States v. Brigham Oil & Gas, L.P.* held that the MBTA did not impose criminal liability on an oil company for the deaths of several migratory birds after coming into contact with a "reserve pit."[105] In doing so, the *Brigham Oil* court concluded "as a matter of law, that lawful commercial activity which may indirectly cause the death of migratory birds does not constitute a federal crime."[106] In addition to relying on the *Newton County* decision, the court in *Brigham* examined the text of the MBTA, concluding that the text "refers to a purposeful attempt to possess wildlife through capture, not incidental or accidental taking through lawful commercial activity."[107] The court also noted that "to extend the Migratory Bird Treaty Act to reach other activities that indirectly result in the deaths of covered birds would yield absurd results,"[108] potentially criminalizing "driving, construction, airplane flights, farming, electricity and wind turbines . . . and many other everyday lawful activities."[109]

Most recently, the Fifth Circuit in *United States v. CITGO Petroleum Corporation* examined "the statute's text, its common law origin, a comparison with other statutes, and [a] rejection of the argument that strict liability can change the nature of the necessary illegal act" and "agree[d] with the Eighth and Ninth circuits that a 'taking' is limited to deliberate acts done directly and intentionally to migratory birds."[110] The court further noted that "[t]he scope of liability under the government's preferred interpretation is hard to overstate," and "would enable the government to prosecute at will and even capriciously (but for the minimal protection of prosecutorial discretion) for harsh penalties."[111] *CITGO* is the most recent decision on this topic and triggered the Department's further evaluation of the question.[112]

Service, which ruled in the alternative that "the loss of migratory birds as a result of timber sales . . . do not constitute a 'taking' or 'killing' within the meaning of the MBTA." 988 F. Supp. 541, 549 (W.D. Penn. 1997).

[105] 840 F. Supp. 2d 1202 (D.N.D. 2012). A "reserve pit" is defined under state law as "an excavated area used to contain drill cuttings accumulated during oil and gas drilling operations and mud-laden oil and gas drilling fluids used to confine oil, gas, or water to its native strata during the drilling of an oil and gas well" and is subject to state regulation. *Id.* at 1204 (quoting N.D.C.C. § 38-08-02).

[106] *Id.* at 1214.

[107] *Id.* at 1209.

[108] *Id.* at 1212.

[109] *Id.* at 1213.

[110] 801 F.3d 477, 488–89 (5th Cir. 2015).

[111] *Id.* at 493–94.

[112] Some courts have suggested that the Eighth and Ninth Circuit decisions are limited to merely cases involving habitat destruction, rather than the direct taking or killing of birds, which could be viewed as "indirect take." *See Apollo Energies*, 611 F.3d at 686 (distinguishing the Eighth Circuit decision in *Newton Country* on the grounds that it involved logging that modified bird habitat in some way); *Moon Lake*, 45 F. Supp. 2d at 1075–76 (suggesting that the Ninth Circuit's ruling in *Seattle Audubon* may be limited to habitat modification or destruction). This limited interpretation seeks to cabin the Eighth and Ninth Circuit opinions to the narrow facts at issue in those cases, consistent with the government's own position that habitat destruction was not criminalized under the MBTA, while

IV. Analysis of Incidental Take Under the MBTA

Based upon the text and purpose of the MBTA, as well as sound principles of constitutional avoidance, this memorandum concludes that the MBTA's prohibitions on pursuing, hunting, taking, capturing, killing, or attempting to do the same only criminalize affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.

a. The Relevant Text of the MBTA is Limited to Affirmative Actions that Have as their Purpose the Taking or Killing of Migratory Birds

The Supreme Court has counseled "[t]he starting point in statutory interpretation is 'the language [of the statute] itself.'"[113] Thus, consistent with the ancient maxim *a verbis legis non est recedendum* ("do not depart from the words of the law"), the text of the law is the necessary starting point to determine the scope of conduct prohibited by the MBTA.[114] As described below, the relevant text indicates that the MBTA only criminalizes purposeful and affirmative actions intended to reduce migratory birds to human control.

The relevant portion of the MBTA reads "it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill . . . any migratory bird, [or] any part, nest, or egg of any such bird."[115] Pursuant to the canon of *noscitur a sociis* ("it is known by its associates"), when any words "are associated in a context suggesting that the words have something in common, they should be assigned a permissible meaning that makes them similar."[116] Section 2 of the MBTA groups together five verbs—pursue, hunt, take,

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disregarding the broad language and logic of the legal interpretations compelling the disposition of each case. *See, e.g.*, *Newton County*, 113 F.3d at 115 ("[W]e agree with the Ninth Circuit that the ambiguous terms 'take' and 'kill' in 16 U.S.C. § 703 mean 'physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918.'" (citing to *Seattle Audubon*, 952 F.2d at 302)). The disposition of those cases led logically to the Fifth Circuit's decision in 2015 holding that the MBTA reaches only affirmative and purposeful acts. *CITGO*, 801 F.3d at 488–89 ("[W]e agree with the Eighth and Ninth circuits that a 'taking' is limited to deliberate acts done directly and intentionally to migratory birds."). The Fifth Circuit went on to interpret this limitation to preclude the application of the MBTA to the death of birds as a result of contact with uncovered equalization tanks. *Id.* at 493–94; *see also Brigham Oil*, 840 F. Supp. 2d at 1209, 1211 (noting that "[t]he Eighth Circuit found that the ambiguous terms 'take' and 'kill' mean 'physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918'" and was "controlling precedent" in case involving uncovered oil reserve pits).

[113] *United States v. James*, 478 U.S. 597, 604 (1986) (quoting *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 756 (1975) (Powell, H., concurring); *see also* Felix Frankfurter, *Some Reflections on the Reading of Statutes*, 47 COLUM L. REV. 527, 535 (1947) ("Though we may not end with the words in construing a disputed statute, one certainly begins there.").

[114] *See* ANTONIN SCALIA & BRYAN A. GARNER, READING THE LAW: THE INTERPRETATION OF LEGAL TEXTS 56 (2012) (quoting DIGEST 32.69 pr. (Marcellus)).

[115] 16 U.S.C. § 703(a) (2017) (emphasis added); *see also* 50 C.F.R. § 10.13 (list of applicable migratory birds).

[116] SCALIA & GARNER, *supra* note 114, at 195; *see also Third Nat'l Bank v. Impac, Ltd.*, 432 U.S. 312, 321 (1977) ("As always, '[t]he meaning of particular phrases must be determined in context' . . . ." (quoting *SEC v. Nat'l Sec.*,

capture, and kill. Accordingly, the canon of *noscitur a sociis* counsels in favor of reading each verb to have a related meaning.[117]

Of these five verbs, three—pursue, hunt, and capture—unambiguously require an affirmative and purposeful action. To wit, according to the first entry for each word in the 1934 edition of Webster's New International Dictionary of the English Language:

- Pursue means "[t]o follow with a view to overtake; to follow eagerly, or with haste; to chase."[118]

- Hunt means "[t]o follow or search for (game or prey) for the purpose, and with the means of capturing or killing;"[119]

- Capture means "[t]o take captive; to seize or take possession of by force, surprise, or stratagem; to overcome and hold; to secure by the exercise of effort, skill, or ingenuity against competition or opposition;"[120]

Thus, one does not passively or accidentally pursue, hunt, or capture. Rather, each requires a deliberate action specifically directed at achieving a purposeful goal.

By contrast, the verbs "kill" and "take" may refer to active or passive conduct, depending on the context.[121] When read together with the other active verbs in Section 2 of the MBTA,

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Inc., 393 U.S. 453, 466 (1969)); *Babbitt v. Sweet Home Chapter of Cmtys. For a Greater Or.*, 515 U.S. 687, 720–21 (1995) (Scalia, J., dissenting) (referring to a similar list in the Endangered Species Act: "I would call it *noscitur a sociis*, but the principle is much the same: The fact that 'several items in a list share an attribute counsels in favor of interpreting the other items as possessing that attribute as well.'" (quoting *Beecham v. United States*, 511 U.S. 368, 371 (1994))).

[117] *See* SCALIA & GARNER, *supra* note 114, at 195 ("The canon especially holds that 'words grouped in a list should be given related meanings.'" (quoting *Third Nat'l Bank*, 432 U.S. at 322)).

[118] WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY at 2018-19 (1934). The 1934 edition is referenced because it is close in time to the adoption of the relevant language, and may provide greater insight into the commonly understood meaning of the terms at the time the MBTA was enacted. *See South Carolina v. United States*, 199 U.S. 437, 448 (1905) (The meaning of written instruments "does not alter. That which it meant when adopted it means now."). *See generally District of Columbia v. Heller*, 128 S. Ct. 2783, 2791-95 (2008) (examining 18th century dictionary definitions to assess the meaning of the phrase "keep and bear Arms" in the Second Amendment); *Molzof v. United States*, 502 U.S. 301, 307 (1992) (examining legal dictionaries in existence when the operative statute was drafted and enacted to interpret its meaning). *See also generally* SCALIA & GARNER, *supra* note 114, at 415–24 (2012) (describing principles for the use of dictionaries in statutory interpretation, noting that dictionaries are often lagging indicators of contemporary meaning); *id.* at 419 (identifying WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY (1934) as one of the "most useful and authoritative" sources "[a]mong contemporaneous-usage dictionaries—those that reflect meanings current at a given time").

[119] WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY at 1215 (1934).

[120] *Id.* at 400.

[121] *See id.* at 1362 ("kill" may mean the more active "to deprive of life; to put to death; to slay" or serve as "the general term for depriving of life"); *id.* at 2569 ("take" has many definitions, including the more passive "[t]o lay or

however, the proper meaning is evident. The operative verbs ("pursue, hunt, take, capture, kill") "are all affirmative acts . . . which are directed immediately and intentionally against a particular animal—not acts or omissions that indirectly and accidentally cause injury to a population of animals."[122] This conclusion is also supported by the U.S. Fish and Wildlife Service's implementing regulations, which define "take" to mean "to pursue, hunt, shoot, wound, kill, trap, capture, or collect" or attempt to do the same.[123] The component actions of "take" involve direct and purposeful actions to reduce animals to human control.[124] As such, they "reinforce[] the dictionary definition, and confirm[] that 'take' does not refer to accidental activity or the unintended results of other conduct."[125] This interpretation does not render the words "take" and "kill" redundant since each has its own discrete definition; indeed, one can hunt or pursue an animal without either killing it or taking it under the definitions relevant at the time the MBTA was enacted.[126]

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get hold of with arms, hands or fingers" or "[t]o get possession or control of" or the more active "[t]o catch, seize, or attack through the effect of a sudden force or influence").

[122] *Sweet Home*, 515 U.S. at 719–20 (Scalia, J., dissenting); *see also CITGO*, 801 F.3d at 489 n.10 ("Even if 'kill' does have independent meaning [from 'take'], the Supreme Court, interpreting a similar list in the [Endangered Species Act], concluded that the terms pursue, hunt, shoot, wound, kill, trap, capture, and collect, generally refer to deliberate actions. *Sweet Home*, 515 U.S. at 698 n.11, 115 S. Ct. at 2413. Accordingly, there is reason to think that the MBTA's prohibition on 'killing' is similarly limited to deliberate acts that effect bird deaths."); *Newton County*, 113 F.3d at 115 ("MBTA's plain language prohibits conduct directed at migratory birds . . . . [T]he ambiguous terms 'take' and 'kill' in 16 U.S.C. § 703 mean 'physical conduct of the sort engaged in by hunters and poachers . . . .'" (quoting *Seattle Audubon*, 952 F.2d at 302)); *Bingham Oil & Gas*, 840 F. Supp. 2d at 1208 ("In the context of the Act, 'take' refers to conduct directed at birds, such as hunting and poaching, and not acts or omissions having merely the incidental or unintended effect of causing bird deaths.").

[123] 50 C.F.R. § 10.12.

[124] In this same regard, the U.S. Fish and Wildlife Service's *Federal Register* notice adopting the current definition of "take" includes "Subpart C – Taking," which consists of four regulations addressing:

- Hunting methods;
- Shooting hours;
- Daily limit; and
- Wanton waste of migratory game birds (requiring hunters to make a reasonable effort to include crippled game birds in their daily bag limit).

Migratory Bird Hunting: Miscellaneous Amendments, 38 Fed. Reg. 22015, 22022 (Aug. 15, 1973). Notably, these regulations make no mention of incidental take, even though they were adopted the same year the government brought the known first criminal case alleging incidental take violated the MBTA. *See id.*; Meredith B. Lilley & Jeremy Firestone, *Wind Power, Wildlife, and the Migratory Bird Treaty: A Way Forward*, 38 ENVTL. L. 1167, 1181 (2008) ("In the early 1970s, United States v. Union Texas Petroleum [No, 73-CR-127 (D. Colo. Jul. 11, 1973)] marked the first case dealing with the issue of incidental take.").

[125] *Brigham Oil & Gas*, 840 F. Supp. 2d at 1209.

[126] The regulations governing exceptions to the prohibition contemplate permits for an array of activities that are affirmative and purposeful actions directed at protected birds, such as permits allowing for control of injurious birds,

Furthermore, the notion that "take" refers to an affirmative action directed immediately and purposefully against a particular animal is supported by the use of the word "take" in the common law. As the Supreme Court has instructed, "absent contrary indications, Congress intends to adopt the common law definition of statutory terms."[127] As Justice Scalia noted, "the term ['take'] is as old as the law itself."[128] For example, the Digest of Justinian places "take" squarely in the context of acquiring dominion over wild animals, stating:

> [A]ll the animals which can be taken upon the earth, in the sea, or in the air, that is to say, wild animals, belong to those who take them. . . . Because that which belongs to nobody is acquired by the natural law by the person who first possesses it. We do not distinguish the acquisition of these wild beasts and birds by whether one has captured them on his own property [or] on the property of another; but he who wishes to enter into the property of another to hunt can be readily prevented if the owner knows his purpose to do so.[129]

Likewise, Blackstone's Commentaries provide:

> A man may lastly have a qualified property in animals feroe naturoe, propter privilegium, that is, he may have the privilege of hunting, taking and killing them in exclusion of other persons. Here he has a transient property in these animals usually called game so long as they continue within his liberty, and may restrain any stranger from taking them therein; but the instant they depart into another liberty, this qualified property ceases.[130]

Thus, under common law "[t]o 'take,' when applied to wild animals, means to reduce those animals, by killing or capturing, to human control."[131] When used as part of a regulatory plan,

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scientific collecting permits, and rehabilitation permits—all activities well within the scope of Section 2. 50 C.F.R. part 21.

[127] *United States v. Shabani*, 513 U.S. 10, 13 (1994). The fact that Congress in other statutes later expanded "take" beyond its common-law meaning confirms that Congress intended to adopt the common-law definition for the MBTA. *See, e.g.*, 16 U.S.C. § 1532(19) (defining "take" under the Endangered Species Act (ESA) to include the terms "harass" and "harm"); 16 U.S.C. § 1362(13) (defining "take" under the Marine Mammal Protection Act (MMPA) to include the term "harass"); *see also Sweet Home*, 515 U.S. at 701 n.15 (suggesting that the definition of "take" in the ESA is broader than the definition of "take" at common law); *Seattle Audubon*, 952 F.2d at 303 (holding "that the differences in the proscribed conduct under ESA and the MBTA are 'distinct and purposeful,'" and that prohibitions under the ESA are broader than those under the MBTA).

[128] *Sweet Home*, 515 U.S. at 717 (Scalia, J., dissenting).

[129] *Geer v. Connecticut*, 161 U.S. 519, 523 (1896) (quoting DIGEST, Book 41, Tit. 1, De Adquir. Rer. Dom.).

[130] *Id.* at 526–27 (1896) (quoting 2 BLACKSTONE COMMENTARY 410).

[131] *Sweet Home*, 515 U.S. at 717 (Scalia, J., dissenting); *see also CITGO*, 801 F.3d at 489 ("Justice Scalia's discussion of 'take' as used in the Endangered Species Act is not challenged here by the government, nor was it criticized by the majority in *Sweet Home*, because Congress gave 'take' a broader meaning for that statute.").

such as that in Section 2 of the MBTA, "[t]he taking prohibition is only part of the regulatory plan . . . which covers all stages of the process by which protected wildlife is reduced to man's dominion and made the object of profit," and, as such, is "a term of art deeply embedded in the statutory and common law concerning wildlife" that "describes a class of acts (not omissions) done directly and intentionally (not indirectly and by accident) to particular animals (not populations of animals)."[132]

A number of courts, as well as the prior M-Opinion, have focused on the MBTA's direction that a prohibited act can occur "at any time, by any means, in any manner" to support the conclusion that the statute prohibits any activity that results in the death of a bird, which would necessarily include incidental take. However, this language does not change the nature of those prohibited acts and simply clarifies that activities directed at migratory birds, such as hunting and poaching, are prohibited whenever and wherever they occur and whatever manner is applied, be it a shotgun, a bow, or some other creative approach to deliberately taking birds.[133]

b. Interpreting Strict Liability as Dispositive Conflates *Mens Rea* and *Actus Rea*

In reaching a contrary conclusion, Opinion M-37041 assumed that because Section 703 is a strict-liability provision, meaning that no *mens rea* or criminal intent is required for a violation to have taken place, *any* act that takes or kills a bird must be covered as long as the act results in the death of a bird. This assumption conflates two separate questions: (1) the definitions of the prohibited acts—arrived at using traditional tools of statutory construction; and (2) the mental state, or lack thereof, required to establish a violation. The relevant acts prohibited by the MBTA are purposeful and voluntary affirmative acts directed at reducing an animal to human control, such as when a hunter shoots a protected bird causing its death. In this example, strict liability would arise even though the hunter did not know that the bird he took was protected under the MBTA or if the hunter shot protected birds when meaning to shoot game birds under a permit. The key remains that the actor was engaged in an activity the object of which was to render an animal subject to human control.[134]

By contrast, liability does not attach to actions the plain object of which does not include rendering an animal subject to human control. Classic examples of such actions include: driving

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[132] *Sweet Home*, 515 U.S. at 718 (Scalia, J., dissenting). We note that this language makes clear that the sort of "human control" referred to by Justice Scalia includes the act of intentionally killing even in the absence of further intent to reduce the particular animal to human *possession*. Thus, intentional killing is itself a form of "human control."

[133] *See generally CITGO*, 801 F.3d at 490 ("The addition of adverbial phrases connoting 'means' and 'manner,' however, does not serve to transform the nature of the activities themselves. For instance, the manner and means of hunting may differ from bowhunting to rifles, shotguns, and air rifles, but hunting is still a deliberately conducted activity. Likewise, rendering all-inclusive the manner and means of 'taking' migratory birds does not change what 'take' means, it merely modifies the mode of take.").

[134] *See* WAYNE R. LAFAVE, CRIMINAL LAW 5.2(e) (5th ed. 2010) ("[W]here the definition of a crime requires some forbidden act by the defendant, his bodily movement, to qualify as an act, must be voluntary. To some extent, then, *all crimes of affirmative action require something in the way of a mental element*—at least an intention to make the bodily movement that constitutes the act which the crime requires.") (emphasis added) (citations omitted). Thus, even strict-liability crimes may involve some element of intent.

a car, allowing a pet cat to roam outdoors, or erecting a windowed building. All of these actions could directly and foreseeably result in the deaths of protected birds, and all would be violations of the MBTA under the now-withdrawn M-Opinion, yet none of these actions have as their object rendering any animal subject to human control. Because no "take" has occurred within the meaning of the MBTA, the strict-liability provisions of the Act are not triggered. A comparison with other strict-liability crimes underscores this point. For example, selling alcohol to minors is generally a strict-liability crime—no *mens rea* is required to establish a violation and a crime is committed even if the seller did not know that the buyer was underage. This is true despite the fact that the act itself, the selling of alcohol, is an affirmative and purposeful act that requires a voluntary intentional act.

The prior M-Opinion posited that amendments to the MBT A that imposed mental state requirements for certain specific offenses were only necessary if no mental state is otherwise required. Again, this mixes separate questions—the definition of the prohibited acts and the *mens rea*, if any. The conclusion that the taking and killing of migratory birds is a strict-liability crime does not answer the separate question of what acts are criminalized under the statute.

The Fifth Circuit explained in *CITGO*:

> [W]e disagree that because misdemeanor MBTA violations are strict liability crimes, a "take" includes acts (or omissions) that indirectly or accidentally kill migratory birds. These and like decisions confuse the *mens rea* and the *actus rea* requirements. Strict liability crimes dispense with the first requirement; the government need not prove the defendant had any criminal intent. But a defendant must still commit the act to be liable. Further, criminal law requires that the defendant commit the act voluntarily. WAYNE R. LAFAVE, CRIMINAL LAW § 5.2(e) (5th ed. 2010). "To some extent, then, all crimes of affirmative action require something in the way of a mental element—at least an intention to make the bodily movement that constitutes that act which the crime requires." *Id.* Here, that act is "to take" which, even without a *mens rea*, is not something that is done unknowingly or involuntarily. Accordingly, requiring defendants, as an element of an MBTA misdemeanor crime, to take an affirmative action to cause migratory bird deaths is consistent with the imposition of strict liability. *See, e.g.*, *United States v. Morgan*, 311 F.3d 611, 616 (5th Cir. 2002).
>
> There is no doubt that a hunter who shoots a migratory bird without a permit in the mistaken belief that it is not a migratory bird may be strictly liable for a "taking" under the MBTA because he engaged in an intentional and deliberate act toward the bird. *Cf. Sweet Home*, 515 U.S. at 722, 115 S. Ct. at 2425 (Scalia, J., dissenting) (hunter's mistaken shooting of an elk is a "knowing" act that renders him strictly liable under the ESA); *United States v. Kapp*, 419 F.3d 666, 673 (7th Cir. 2005) (holding Kapp liable under the ESA over objection that the exotic cats he killed were unprotected hybrids). A person whose car accidentally collided with the bird, however, has committed no act "taking" the bird for which he could be held strictly liable. Nor do the owners of electrical lines "take" migratory birds who run into them. These distinctions are inherent in

the nature of the word "taking" and reveal the strict liability argument as a non-sequitur.[135]

The *Mahler* court further described the interplay between activities that are "intended" to harm birds and the strict liability standard of the MBTA:

> [A comment in the legislative history] in favor of strict liability does not show any intention on the part of Congress to extend the scope of the MBTA beyond hunting, trapping, poaching, and trading in birds and bird parts to reach any and all human activity that might cause the death of a migratory bird. Those who engage in such activity and who accidentally kill a protected migratory bird or who violate the limits on their permits may be charged with misdemeanors without proof of intent to kill a *protected* bird or intent to violate the terms of a permit. That does not mean, however, that Congress intended for "strict liability" to apply to all forms of human activity, such as cutting a tree, mowing a hayfield, or flying a plane. The 1986 amendment and corresponding legislative history reveal only an intention to close a loophole that might prevent felony prosecutions for commercial trafficking in migratory birds and their parts.
>
> Thus, there appears to be no explicit basis in the language or the development of the MBTA for concluding that it was intended to be applied to any and all human activity that causes even unintentional deaths of migratory birds.[136]

The use of the words "affirmative" and "purposeful" serve to limit the range of actions prohibited under the MBTA to activities akin to hunting and trapping and exclude more attenuated conduct, such as lawful commercial activity that unintentionally and indirectly results in the death of migratory birds.

c. The Legislative History Is Limited to Discussion of Affirmative Actions that Have as their Purpose the Taking or Killing of Migratory Birds

i. The Original Purpose of the MBTA was to Regulate Overhunting

Even if the text of the statute were ambiguous, the history of the MBTA and the debate surrounding its adoption illustrate that the Act was part of Congress's efforts to regulate the hunting of migratory birds in direct response to the extreme over-hunting, largely for commercial purposes, that had occurred over the years.[137] Testimony concerning the MBTA given by the Solicitor's Office for the Department of Agriculture underscores this focus:

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[135] 801 F.3d at 492–93 (footnotes omitted).

[136] *Mahler*, 927 F. Supp. at 1581 (referencing S. REP. NO. 99-445, at 16 (1986), *reprinted* in 1986 U.S.C.C.A.N. 6113, 6128).

[137] *See Moon Lake*, 45 F. Supp. 2d at 1080 ("the MBTA's legislative history indicates that Congress intended to regulate recreational and commercial hunting"); *Mahler*, 927 F. Supp. at 1574 ("The MBTA was designed to forestall hunting of migratory birds and the sale of their parts.").

> We people down here hunt [migratory birds]. The Canadians reasonably want some assurances from the United States that if they let those birds rear their young up there and come down here, we will preserve a sufficient supply to permit them to go back there.[138]

Likewise, the Chief of the Department of Agriculture's Bureau of Biological Survey noted that he "ha[s] always had the idea that [passenger pigeons] were destroyed by overhunting, being killed for food and for sport."[139]

Statements from individual Congressmen evince a similar focus on hunting. Senator Smith, "who introduced and championed the Act . . . in the Senate,"[140] explained:

> Nobody is trying to do anything here except to keep pothunters from killing game out of season, ruining the eggs of nesting birds, and ruining the country by it. Enough birds will keep every insect off of every tree in America, and if you will quit shooting them they will do it.[141]

Likewise, during hearings of the House Foreign Affairs Committee, Congressman Miller, a "vigorous fighter, who distinguished himself in the debate" over the MBTA,[142] put the MBTA squarely and exclusively in the context of hunting:

> I want to assure you . . . that I am heartily in sympathy with this legislation. I want it to go through, because I am up there every fall, and I know what the trouble is. The trouble is in shooting the ducks in Louisiana, Arkansas, and Texas in the summer time, and also killing them when they are nesting up in Canada.[143]

Outside interest groups also expressed a more specific view of the MBTA. For example, the American Game Preservation Association described the 1916 Migratory Bird Treaty as "an important part of federal law" that:

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[138] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 22–23 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture).

[139] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 11 (1917) (statement of E. W. Nelson, Chief Bureau of Biological Survey, Department of Agriculture).

[140] *Leaders in Recent Successful Fight for the Migratory Bird Treaty Act*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 5.

[141] 55 CONG. REC. 4816 (statement of Sen. Smith) (1917).

[142] *Leaders in Recent Successful Fight for the Migratory Bird Treaty Act*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 5.

[143] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 7 (1917) (statement of Rep. Miller).

[P]rovides in effect four principal things:

1. That no bird important to agriculture because of insect-destroying proclivities shall be shot at any time.
2. That no open season on any species of game birds shall extend for a longer period than three and one-half months.
3. That both countries shall so restrict open seasons on game birds as to prevent their being taken during the breeding season.
4. That there shall be no shipment from one country to the other of birds which are taken contrary to law.[144]

Upon passage of the MBTA, the American Game Preservation Association noted that "[t]he Enabling Act closely follows the provisions of the treaty."[145] Thus, since, as described by the American Game Preservation Association, the Migratory Bird Treaty only regulated hunting and the shipment of birds from one country to another and the MBTA "closely follow[ed]" the treaty, it follows that the MBTA itself was also limited to regulating hunting and the shipment of birds.

In seeking to take a broader view of congressional purpose, the *Moon Lake* court looked to other contemporary statements that cited the destruction of habitat, along with improvements in firearms, as a cause of the decline in migratory bird populations. The court even suggested that these statements, which "anticipated application of the MBTA to children who act 'through inadvertence' or 'through accident,'" supported a broader reading of the legislative history.[146] Upon closer examination, these statements are consistent with a limited reading of the MBTA.

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[144] *Success Crowns the Canadian Treaty Campaign*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, Oct. 1, 1916, at 1.

[145] William Haskell, *Invincible Legislation*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 4.

[146] *Moon Lake*, 45 F. Supp. 2d at 1080–81. The court also noted that "the MBTA protects many species that are not considered game birds" and that "[m]any Congressmen also suggested that the true purpose of the MBTA was a desire to maintain a steady supply of game animals for the upper classes." *Id.* at 1081–82. These arguments are also unavailing.

The extension of the MBTA to birds that are not considered "game" birds does not suggest a broader reading of the MBTA. Plume birds are often not game birds. *See* KRISTINA ROZAN, DETAILED DISCUSSION ON THE MIGRATORY BIRD TREATY ACT, Animal Legal & Historical Ctr., Mich. St. Univ. Coll. of Law (2014), https://www.animallaw.info/article/detailed-discussion-migratory-bird-treaty-act. ("The MBTA was passed in 1918 to combat over-hunting and poaching that was decimating bird populations. At that time, the market for birds was dominated by the enormous demand not for food but for feathers by the millinery industry to adorn women's hats."). *See generally* Ogden, *supra* note 6, at 5–6 (discussing the plume trade). Given that one of the major purposes of the MBTA was to limit the danger to migratory birds posed by the commercial plume hunting industry, it would make no sense for Congress to have limited the MBTA to just game birds.

The court also cited to floor statements indicating that "[m]any Congressmen also suggested that the true purpose of the MBTA was a desire to maintain a steady supply of game animals for the upper classes." *Moon Lake*, 45 F. Supp. 2d at 1082. This argument was primarily advanced by opponents of the bill, and does not have clear implications one way or the other for the scope of conduct within the ambit of the MBTA.

One such contemporary statement cited by the court is a letter from Secretary of State Robert Lansing to the President attributing the decrease in migratory bird populations to two general issues:

- Habitat destruction, described generally as "the extension of agriculture, and particularly the draining on a large scale of swamps and meadows;"[147] and

- Hunting, described in terms of "improved firearms and a vast increase in the number of sportsmen."[148]

These statements were referenced by Representative Baker during the House floor debate over the MBTA, implying that the MBTA was intended to address both issues.[149] However, Congress addressed hunting and habitat destruction in the context of the Migratory Bird Treaty through two separate acts:

- First, in 1918, Congress adopted the MBTA to address the direct and intentionally killing of migratory birds;

- Second, in 1929, Congress adopted the Migratory Bird Conservation Act to "more effectively" implement the Migratory Bird Treaty by protecting certain migratory bird habitats.[150]

The Migratory Bird Conservation Act provided the authority to purchase or rent land for the conservation of migratory birds, including for the establishment of inviolate "sanctuaries" wherein migratory bird habitats would be protected from persons "cut[ting], burn[ing], or destroy[ing] any timber, grass, or other natural growth."[151] If the MBTA was originally understood to protect migratory bird habitats from incidental destruction, enactment of the Migratory Bird Conservation Act nine years later would have been largely superfluous. Instead, the MBTA and the Migratory Bird Conservation Act are complimentary: "Together, the Treaty Act in regulating hunting and possession and the Conservation Act by establishing sanctuaries and preserving natural waterfowl habitat help implement our national commitment to the protection of migratory birds."[152]

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[147] *Moon Lake*, 45 F. Supp. 2d at 1080–81 (quoting H. REP. NO. 65-243, at 2 (1918) (letter from Secretary of State Robert Lansing to the President)).

[148] *Id.* at 1081 (quoting H. REP. NO. 65-243, at 2 (1918) (letter from Secretary of State Robert Lansing to the President)).

[149] *Id.*

[150] Migratory Bird Conservation Act, ch, 257, 45 Stat. 1222 (1929) (codified as amended at 16 U.S.C. §§ 715–715s).

[151] *Id.* § 10, 45 Stat. at 1224. Congress also enacted the Neotropical Migratory Bird Conservation Act of 2000 to specifically provide funding for nongame migratory bird conservation. *See* 16 U.S.C. §§ 6101–6109.

[152] *United States v. North Dakota*, 650 F.2d 911, 913–14 (8th Cir. 1981), *aff'd on other grounds*, 460 U.S. 300 (1983).

Some courts have attempted to interpret a number of floor statements as supporting the notion that Congress intended the MBTA to regulate more than just hunting and poaching, but those statements reflect an intention to prohibit affirmative and purposeful acts directed at birds—whether accomplished through hunting or some other means intended to directly kill birds. For example, some Members "anticipated application of the MBTA to children who act 'through inadvertence' or 'through accident:'"

> What are you going to do in a case like this: A barefoot boy, as barefoot boys sometimes do, largely through inadvertence and without meaning anything wrong, happens to throw a stone at and strikes and injures a robin's nest and breaks one of the eggs, whereupon he is hauled before a court for violation of a solemn treaty entered into between the United States of America and the Provinces of Canada.[153]

"[I]nadvertence" in this statement refers to the boy's *mens rea*. As the rest of the sentence clarifies, the hypothetical boy acted "without *meaning* anything wrong," not that he acted unintentionally or accidentally in damaging the robin's nest. This is reinforced by the rest of the hypothetical, which posits that the boy threw "a stone *at* and strikes and injures a robin's nest." The underlying act is purposeful and affirmatively directed specifically at the robin's nest.[154] In other statements various members of Congress expressed concern about "sportsmen," people "killing" birds, "shooting" of game birds or "destruction" of insectivorous birds, and whether the purpose of the MBTA was to favor a steady supply of "game animals for the upper classes."[155] One Member of Congress even offered a statement that explains why the statute is not redundant in its use of the various terms to explain what activities are regulated: "[T]hey cannot hunt ducks in Indiana in the fall, because they cannot kill them. I have never been able to see why you cannot hunt, whether you kill or not. There is no embargo on hunting, at least down in South Carolina . . . ."'[156] That Congress was animated regarding potential restrictions on hunting and

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[153] *Moon Lake*, 45 F. Supp. 2d at 1081 (quoting 56 CONG. REC. 7455 (1918) (statement of Rep. Mondell)).

[154] A fuller examination of the context shows that these concerns were dismissed as absurd hyperbole:

> I can not see why we should take two whole days in summoning bogies from the depths, in seeing fantastic dreams of the liberties of the Republic sacrificed because of the fact that we are enacting a migratory-bird law. Gentlemen conjure up the idea that a bureaucracy will be created, and that every innocent boy who goes out to play upon the streets and breaks a bird's egg through accident is to be haled 500 miles away and punished as if he were committing an offense of the highest degree, and with all the rigors of the criminal law. Gentlemen, to imagine such things as that and to spend time in talking about them here would be bad enough if it were done in sport. It is worse when it is seriously suggested.

56 CONG. REC. 7456 (1918) (statement of Rep. Dempsey). Far from "anticipating the application of the MBTA to children who act 'through inadvertence' or 'through accident,'" Representative Dempsey was dismissing such applications as "fantastic dreams" that need not be "seriously suggested."

[155] *Moon Lake*, 45 F. Supp. 2d at 1080–81.

[156] *Id.* at 1081 (quoting 56 Cong. Rec. 7446 (1918) (statement of Rep. Stevenson)).

its impact on individual hunters is evident from even the statements relied upon as support for the conclusion that the statute reaches incidental take.

Finally, in 1918, federal regulation of the hunting of wild birds was a highly controversial and legally fraught subject. Taken together with the history of the Act, these factors make it highly unlikely that the MBTA was intended to criminalize a broad array of conduct that might incidentally take or kill birds. For example, on the floor of the Senate, Senator Reed proclaimed:

> I am opposed not only now in reference to this bill [the MBTA], but I am opposed as a general proposition to conferring power of that kind upon an agent of the Government. . . .
>
> . . . .
>
> . . . Section 3 proposes to turn these powers over to the Secretary of Agriculture . . . to make it a crime for a man to shoot game on his own farm or to make it perfectly legal to shoot it on his own farm . . . .
>
> When a Secretary of Agriculture does a thing of that kind I have no hesitancy in saying that he is doing a thing that is utterly indefensible, and that the Secretary of Agriculture who does it ought to be driven from office. . . .[157]

Federal regulation of hunting was also legally tenuous. As discussed in section II(a), whether the federal government had any authority to regulate the killing or taking of any wild animal was, at best, an open question in 1918. Just over 20 years earlier, the Supreme Court in *Geer* ruled that the states exercised the power of ownership over wild game in trust, implicitly precluding federal regulation.[158] When Congress did attempt to assert a degree of federal jurisdiction over wild game with the 1913 Weeks-McLean Law, it was met with mixed results in the courts, leaving the question pending before the Supreme Court at the time of the MBTA's enactment. It was not until *Missouri v. Holland* in 1920 that the Court, relying on authority derived from the Migratory Bird Treaty, definitively acknowledged the federal government's ability to regulate the taking of wild birds.[159]

Given the legal uncertainty and political controversy surrounding federal regulation of intentional hunting, it is highly unlikely that Congress intended to confer authority upon the executive branch to regulate all manner of economic activity that had an accidental or unintended impact on migratory birds.

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[157] 55 CONG. REC. 4813 (1917) (statement of Sen. Reed).

[158] *Geer v. Connecticut*, 161 U.S. 519 (1896).

[159] 252 U.S. 416 (1920). We note that the reason behind this decision has remained controversial. *See, e.g., Bond v. United States*, 134 S. Ct. 2077, 2109 (2014) (Thomas, J., concurring) (noting that the court in *Holland* "upheld a statute implementing [the Migratory Bird] treaty based on an improperly broad view of the Necessary and Proper Clause").

ii. The Original Meaning of the MBTA Has Not Changed

Subsequent legislative history further supports a limited interpretation of the MBTA. General canons of statutory construct direct that "[w]ords must be given the meaning they had when the text was adopted."[160] The meaning of written instruments "does not alter. That which it meant when adopted it means now."[161]

The operative language in Section 2 of the MBTA has changed little since its adoption in 1918. The current iteration of the relevant language—making it unlawful for persons "at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess" specific migratory birds—was adopted in 1935 as part of the Mexico Treaty Act and has remained unchanged since then.[162] There is no indication that the Mexico Treaty Act was intended to broaden the scope of the MBTA beyond deliberate and purposeful actions, nor was it used to do so at the time.

It was not until more than fifty years after the initial adoption of the MBTA and twenty-five years after the Mexico Treaty Act that federal prosecutors began applying the MBTA to incidental actions.[163] This newfound federal authority was not accompanied by any corresponding legislative change. The only contemporaneous changes to Section 2 of the MBTA were technical updates recognizing the adoption of a treaty with Japan.[164]

Opinion M-37041 posits that broad language in the later conventions aspiring to preservation of bird populations, protection of their environments, and protection from pollution lends credence to the conclusion that the MBTA prohibits incidental take. However, the historical record is bereft of any discussion of specific protective mechanisms beyond regulation of hunting and preservation of habitat.[165] Furthermore, no changes were made to the section of

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[160] SCALIA & GARNER, *supra* note 114 at 78. Scalia and Garner note a caveat: "Proper application of the fixed-meaning canon requires recognition of the fact that some statutory terms refer to defined legal qualifications whose definitions are, and are understood to be, subject to change." *Id.* at 89. In the MBTA, the term "migratory bird" is an example of a legal qualification whose definition is understood to be subject to change. The terms "pursue," "hunt," "capture," "kill," and "take" are not.

[161] *South Carolina v. United States*, 199 U.S. 437, 448 (1905).

[162] *Compare* Mexico Treaty Act, 49 Stat. 1555, § 3 *with* 16 U.S.C. § 703(a).

[163] *See* Lilley & Firestone, *supra* note 124, at 1181 ("In the early 1970s, United States v. Union Texas Petroleum [No, 73-CR-127 (D. Colo. Jul. 11, 1973)] marked the first case dealing with the issue of incidental take.").

[164] *See* Act of June 1, 1974, Pub. L. No. 93-300, 88 Stat. 190. Implementing legislation for the treaty with the Soviet Union did not amend Section 2. *See* Fish and Wildlife Improvement Act of 1978, Pub. L. No. 95-616, sec. 3(h), 92 Stat. 3110.

[165] In 2008, Canada stated in a diplomatic note to the United States that the parties agreed that regulation of incidental take is consistent with the Canada Convention. *See* Note No. 0005 from Canadian Embassy to United States Department of State at 2 (July 2, 2008). The United States did not respond. The fact that Canada may view regulation of incidental take as consistent with the Canada Convention says nothing about the legal definition of the terms in the MBTA under United States law.

the MBTA at issue here following the later conventions except that the Act was modified to include references to these later agreements. Certainly many other federal laws may require consideration of potential impacts to birds and their habitat in a way that furthers the goals of the Conventions' broad statements.[166] Given the overwhelming evidence that the purpose of the Treaty and Act was to control over-hunting, these references do not bear the weight of the conclusion reached by the prior Opinion.

Thus, the only legislative enactment concerning incidental activity under the MBTA is the 2003 appropriations bill that explicitly exempted military-readiness activities from liability under the MBTA for incidental takings.[167] There is nothing in this legislation that authorizes the government to pursue incidental takings charges in other contexts. Rather, some have "argue[d] that Congress expanded the definition of 'take' by negative implication" since "[t]he exemption did not extend to the 'operation of industrial facilities,' even though the government had previously prosecuted activities that indirectly affect birds."[168]

This argument is contrary to the Court's admonition that "Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."[169] As explained above, the MBTA as originally enacted did not reach incidental take. Thus, Congress would have to affirmatively act to expand the reach of the MBTA.

As the Fifth Circuit explained, "[a] single carve-out from the law cannot mean that the entire coverage of the MBTA was implicitly and hugely expanded."[170] Rather, it appears Congress was acting in a limited fashion to preempt a specific and immediate impediment to military-readiness activities. "Whether Congress deliberately avoided more broadly changing the MBTA or simply chose to address a discrete problem, the most that can be said is that Congress did no more than the plain text of the amendment means."[171] It did not hide the

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[166] *See, e.g.*, *Mahler*, 927 F. Supp. at 1581 ("Many other statutes enacted in the intervening years also counsel against reading the MBTA to prohibit any and all migratory bird deaths resulting from logging activities in national forests. As is apparent from the record in this case, the Forest Service must comply with a myriad of statutory and regulatory requirements to authorize even the very modest type of salvage logging operation of a few acres of dead and dying trees at issue in this case. Those laws require the Forest Service to manage national forests so as to balance many competing goals, including timber production, biodiversity, protection of endangered and threatened species, human recreation, aesthetic concerns, and may others.").

[167] *See* Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, Div. A, Title III, § 315, 116 Stat. 2509 (2002), *reprinted in* 16 U.S.C.A. § 703, Historical and Statutory Notes.

[168] *CITGO*, 801 F.3d at 490-91.

[169] *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001).

[170] *CITGO*, 801 F.3d at 491.

[171] *Id.*

elephant of incidental takings in the mouse hole of the negative implications of a narrow appropriations provision.[172]

d. The MBTA Should be Interpreted Narrowly to Avoid Constitutional Doubt

The Supreme Court has recognized that "[a] fundamental principle in our legal system is that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required."[173] "No one may be required at peril of life, liberty or property to speculate as to the meaning of penal statutes."[174] Accordingly, a "statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application, violates the first essential of due process of law."[175] Thus, "[a] conviction or punishment fails to comply with due process if the statute or regulation

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[172] Some commentators have argued that a 2001 Executive Order issued by President Clinton, entitled "Responsibilities of Federal Agencies to Protect Migratory Birds," altered the definition of "take" to include incidental take. *See, e.g.*, Lilley & Firestone, *supra* note 124, at 1186 ("President Clinton's issuance of Executive Order 13186, in tandem with existing FWS regulations, solidified the MBTA's reach over incidental take. The Order clarifies the 'take' definition as including both 'intentional' and 'unintentional' take, thereby eliminating confusion over whether the MBTA, in fact, governs incidental take." (footnotes omitted)). This interpretation misreads the scope of the Executive Order. Executive Order 13186 is limited to the management of the federal government. Thus, to the extent it defined "take" to include incidental take, it was "for purposes of this order," which was "intended only improve the internal management of the executive branch." Exec. Order No. 13186, 66 Fed. Reg. 3853, §§ 2, 5(b) (Jan. 17, 2001). It did not, and, without further legislative or regulatory action, could not, change the underlying law or regulations. *See id.* § 5(b). Thus, the only responsibility Executive Order 13186 directly places on federal agencies concerning incidental take is to:

> [I]dentify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the [Fish and Wildlife] Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts.

Id. § 3(e)(9). In addition, the Executive Order implicitly addresses incidental take by directing each agency to "provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds," *id.* § 3(e)(12), given the Executive Order's broad definition of "take," which includes both intentional and unintentional take, *id.* § 2(a). The Executive Order does not redefine "take" for purposes of assigning criminal liability under the MBTA.

[173] *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012).

[174] *Lanzetta v. New Jersey*, 306 U.S. 451, 453 (1939); *see also Dunn v. United States*, 442 U.S. 100, 112 (1979) ("[F]undamental principles of due process . . . mandate that no individual be forced to speculate, at peril of indictment, whether his conduct is prohibited."). Unlike in the strict liability context, it matters not for due process that the MBTA is often a misdemeanor statute. "[A] violation of due process cannot be cured by light punishment." *United States v. Rollins*, 706 F. Supp. 742, 745 (D. Idaho 1989).

[175] *Fox Television*, 567 U.S. at 253 (quoting *Connally v. General Constr. Co.*, 269 U.S. 385, 391 (1926)).

under which it is obtained 'fails to provide a person of ordinary intelligence fair notice of what is prohibited, or is so standardless that it authorizes or encourages seriously discriminatory enforcement.'"[176]

Assuming, *arguendo*, that the MBTA is ambiguous, the interpretation that limits its application to affirmative and purposeful conduct is necessary to avoid grave constitutional infirmities. As the Court has advised, "where an otherwise acceptable construction of a statute would raise serious constitutional problems, the Court will construe the statute to avoid such problems unless such construction is plainly contrary to the intent of Congress."[177] Here, an attempt to impose liability for acts that are neither affirmatively nor directly aimed at migratory birds raises just such constitutional concerns.

Further, if the MBTA is ambiguous, a narrower construction of the MBTA is consistent with the rule of lenity. The rule of lenity requires the resolution of any ambiguity in a statute defining a crime in a defendant's favor.[178] The rule comes into play in "those situations in which a reasonable doubt persists about a statute's intended scope even *after* resort to 'the language and structure, legislative history, and motivating policies' of the statute."[179]

i. The Scope of Incidental Taking Liability Under the MBTA is Virtually Unlimited

The "scope of liability" under an interpretation of the MBTA that extends criminal liability to all persons who inadvertently or accidentally kill or take migratory birds incidental to another activity is "hard to overstate"[180] and "offers unlimited potential for criminal prosecutions."[181] "The list of birds now protected as 'migratory birds' under the MBTA is a long one, including many of the most numerous and least endangered species one can imagine."[182]

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[176] *Id.* (quoting *United States v. Williams*, 553 U.S. 285, 304 (2008)).

[177] *Edward J. DeBartolo Corp. v. Fla. Gulf Coast Bldg. & Constr. Trades Council*, 485 U.S. 568, 575 (1988); *see also* TREVOR W. MORRISON, THE CANON OF CONSTITUTIONAL AVOIDANCE AND EXECUTIVE BRANCH LEGAL INTERPRETATION IN THE WAR ON TERROR 1, (2006), *available at* https://www.acslaw.org/sites/default/files/Morrison_-_Constitutional_Avoidance.pdf (noting "the validity of the avoidance canon is typically taken as 'settled,' its accepted status in the courts treated as sufficient to justify its use in the executive branch as well." (footnote omitted) (citing 20 Op. Off. Legal Counsel 253, 265 (1996) (referring to the courts' use of the avoidance canon and stating that "[t]he practice of the executive branch is and should be the same."))).

[178] *See* SCALIA & GARNER, *supra* note 114, at 296 (2012).

[179] *Moskal v. United States*, 498 U.S. 103, 108 (1990) (emphasis in original) (quoting *Bifulco v. United States*, 447 U.S. 381, 387 (1980)).

[180] *CITGO*, 801 F.3d at 493.

[181] *Brigham Oil*, 840 F. Supp. 2d at 1213.

[182] *Mahler*, 927 F. Supp. at 1576.

Currently, over 1000 species of birds—"nearly every bird species in North America"[183]—are protected by the MBTA.[184] According to the U.S. Fish and Wildlife Service, the top "human-caused threats to birds" are:

- Cats, which kill an estimated 2.4 billion birds per year;
- Collisions with building glass, which kills an estimated 303.5 million birds per year;
- Collisions with vehicles, which kill an estimated 200 million birds per year;
- Poisons, which kill an estimated an estimated 72 million birds per year;
- Collisions with electrical lines, which kill an estimated 25 million birds per year;
- Collisions with communications towers, which kill an estimated 6.5 million birds per year;
- Electrocutions, which kill an estimated 5.4 million birds per year;
- Oil pits, which kill an estimated 750 thousand birds per year; and
- Collisions with wind turbines, which kill and estimated 174 thousand birds per year.[185]

Interpreting the MBTA to apply strict criminal liability to any instance where a migratory bird is killed as a result of these "human-caused threats" would be a clear and understandable rule.[186] It would also turn every American who owns a cat, drives a car, or owns a home—that is to say,

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[183] Anderson & Birchell, *supra* note 79, at 67 ("The MBTA protects nearly every bird species in North America, including waterfowl, songbirds, shorebirds, and raptors . . . .").

[184] *See* 50 C.F.R. § 10.13 (list of protected migratory birds) *see also* Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30032, 30033 (May 26, 2015) ("Of the 1,027 currently protected species, approximately 8% are either listed (in whole or in part) as threatened or endangered under the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*) and 25% are designated (in whole or in part) as Birds of Conservation Concern (BCC)".).

[185] U.S. Fish and Wildlife Service, Threats to Birds: Migratory Birds Mortality—Questions and Answers, *available at* https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php (last updated May 25, 2016). While reliable numbers are difficult to determine, other forms of alternative energy, such as solar farms, also kill migratory birds. *See* Sammy Roth, *How Many Birds are Killed by Solar Farms*, THE DESERT SUN, Aug. 17, 2016, *available at* http://www.desertsun.com/story/tech/science/energy/2016/08/17/how-many-birds-killed-solar-farms/88868372/ (last updated Aug. 18, 2016). For example, Thomas Dietsch of the Migratory Bird Division of the Fish and Wildlife Service noted 3,545 reported bird deaths at seven Southern California solar farms from 2012 to April 2016. *See* Thomas Dietsch, Update on Solar-Avian Interactions in Southern California at 9 (May 10, 2016), *in* Multiagency Avian-Solar Collaborative Working Group: Stakeholder Workshop, *available at* http://blmsolar.anl.gov/program/avian-solar/docs/Avian-Solar_CWG_May_2016_Workshop_Slides.pdf.

[186] *See Apollo Energies*, 611 F.3d at 689 (concluding that under an incidental take interpretation, "[t]he actions criminalized by the MBTA may be legion, but they are not vague.").

the vast majority of Americans[187]—into a potential criminal.[188] Such an interpretation would lead to absurd results, which are to be avoided.[189]

These absurd results are not ameliorated by limiting the definition of "incidental take" to "direct and foreseeable" harm as some courts have suggested.[190] The court in *Moon Lake* identified an "important and inherent limiting feature of the MBTA's misdemeanor provision: to obtain a guilty verdict . . . , the government must prove proximate causation."[191] Quoting Black's Law Dictionary, the court defines proximate cause as "that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the accident could not have happened, if the injury be one which might be *reasonably anticipated or foreseen as a natural consequence of the wrongful act.*"[192] The Tenth Circuit in *Apollo Energies* took a similar approach, holding "the MBTA requires a defendant to proximately cause the statute's violation for the statute to pass constitutional muster" and quoting from Black's Law Dictionary to define "proximate cause."[193]

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[187] *See, e.g.*, Robin Chase, Does Everyone in America Own a Car?, U.S. Department of State, *available at* https://photos.state.gov/libraries/cambodia/30486/Publications/everyone_in_america_own_a_car.pdf ("It is true that 95 percent of American households own a car, and most Americans get to work by car (85 percent).").

[188] As at least one court has noted, this would also place a greater duty on to protect the lives of migratory birds than are currently exists for people. *See Mahler*, 927 F. Supp. 1577-78 ("[T]he criminal law ordinarily requires proof of at least negligence before a person can be held criminally liable for causing the death of another human being. [The plaintiff's] approach to the MBTA would impose criminal liability on a person for the death of a bird under circumstances where no criminal liability would be imposed for even the death of another *person*." (emphasis in original)).

[189] *See Griffin v. Oceanic Contractors*, 458 U.S. 564, 575 (1982) ("interpretations of a statute which would produce absurd results are to be avoided if alternative interpretations consistent with the legislative purpose are available"); *see also K Mart Corp. v. Cartier*, 486 U.S. 281, 324 n.2 (1988) (Scalia, J. concurring in part and dissenting in part) ("it is a venerable principle that a law will not be interpreted to produce absurd results"). Several courts that have interpreted the MBTA to include incidental takings have recognized that its literal application would be inappropriate. *See FMC*, 572 F.2d at 905 ("Certainly construction that would bring every killing within the statute such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential dwellings into which birds fly, would offend reason and common sense."); *Corbin Farm Serv.*, 444 F. Supp. at 535 ("Obviously, prosecution would not be justified in the hypothetical presented by the defendant; the hypothetical car driver . . . .").

[190] *See* U.S. FISH AND WILDLIFE SERVICE MANUAL, part 720, ch. 3, *Incidental Take Prohibited Under the Migratory Bird Treaty Act* (Jan. 11, 2017).

[191] *Moon Lake*, 45 F. Supp. 2d at 1085.

[192] *Id.* (quoting BLACK'S LAW DICTIONARY 1225 (6th ed. 1990)) (emphasis in original). Based on this reasoning, and with no analysis, the court asserted "[b]ecause the death of a protected bird is generally not a probable consequence of driving an automobile, piloting an airplane, maintaining an office building, or living in a residential dwelling with a picture window, such activities would not normally result in liability . . . even if such activities would cause the death of protected birds." *Id.* This passage subtly shifts the standard from merely "reasonably anticipated or foreseen as a natural consequence" to a "probable consequence."

[193] *Apollo Energies*, 611 F.3d at 690.

Contrary to the suggestion of the courts in *Moon Lake* and *Apollo Energies* that principles of proximate causation can be read into the statute to define and limit the scope of incidental take, the death of birds as a result of activities such as driving, flying, or maintaining buildings with large windows is a "direct," "reasonably anticipated," and "probable" consequence of those actions. As discussed above, collisions with buildings and cars are the second and third most common human-caused threat to birds, killing an estimated 303.5 million and 200 million birds per year, respectively. It is eminently foreseeable and probable that cars and windows will kill birds.[194] Further, when cars kill birds, it is by virtue of a machine under the direct control of an individual physically striking a bird. An activity could hardly be any more "direct" and not be the intended purpose of the action. Thus, limiting incidental take to direct and foreseeable results does little to prevent absurd outcomes.

ii. Prosecutorial Discretion is Insufficient to Cure an Otherwise Vague Law

To avoid these absurd results, the government has historically relied on prosecutorial discretion.[195] Yet, the Supreme Court has declared "[i]t will not do to say that a prosecutor's sense of fairness and the Constitution would prevent a successful . . . prosecution for some of the activities seemingly embraced within the sweeping statutory definitions."[196] For broad statutes that may be applied to seemingly minor or absurd situations, "[i]t is no answer to say that the statute would not be applied in such a case."[197] Although "[p]rosecutors necessarily enjoy much discretion and generally use it wisely," they are still human; "the liberty of our citizens cannot rest at the whim of an individual who could have a grudge or, perhaps, just exercise bad judgement."[198]

Recognizing the challenge posed by relying upon prosecutorial discretion, the *FMC* court sought to avoid absurd results by limiting its holding to "extrahazardous activities."[199] The term

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[194] And it is at least as foreseeable as the electrical lines at issue in *Moon Lake*. Electrocutions kill approximately 5.4 million birds per year—vehicles kill approximately 56 times more birds, while windows only kill approximately 37 times more. In *Moon Lake*, "[t]he government allege[d] that Moon Lake has failed to install inexpensive equipment on 2,450 power poles, causing the death or injury of 38 birds of prey during the 29 month period commencing January 1996 and concluding June 1998." *Moon Lake*, 45 F. Supp. 2d at 1071. This equates to approximately 1.3 dead or injured birds per month, spread over 2,450 power poles.

[195] *See* Ogden, *supra* note 6, at 29 ("Historically, the limiting mechanism on the prosecution of incidental taking under the MBTA by non-federal persons has been the exercise of prosecutorial discretion by the FWS.") *See generally FMC*, 572 F.2d at 905 (situations "such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential dwellings . . . properly can be left to the sound discretion of prosecutors and the courts").

[196] *Baggett v. Bullitt*, 377 U.S. 360, 373 (1964); *see also Mahler*, 927 F. Supp. 1582 ("Such trust in prosecutorial discretion is not really an answer to the issue of statutory construction" in interpreting the MBTA.).

[197] *Keyishian v. Bd. of Regents*, 385 U.S. 589, 599 (1967).

[198] *United States v. Wells*, 519 U.S. 482, 512 n.15 (1997) (Stevens, J. dissenting).

[199] *FMC*, 572 F.2d at 907. The court in *Corbin Farm* adopted a similar rationale. 444 F. Supp. at 536 ("When dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment

"extrahazardous activities" is not found anywhere in the statute, and is not defined by either the court or the Fish and Wildlife Service.[200] Thus, it is unclear what activities are "extrahazardous." In *FMC*, the concept was applied to the manufacture of "toxic chemicals," *i.e.*, pesticides. But the court was silent as to how far this rule extends, even in the relatively narrow context of pesticides.[201] What other activities outside the production of pesticides may be "extrahazardous?" The U.S. Fish and Wildlife Service reported that poisons alone kill an estimated 72 million birds per year. Are all of these deaths potential crimes under the MBTA? Even with this judicial gloss, ordinary people must necessarily guess at what is prohibited on pain of incarceration. This type of uncertainty is not permitted under the Supreme Court's due process jurisprudence.[202]

While the MBTA does contemplate the issuance of permits authorizing the taking of wildlife, it requires such permits to be issued by "regulation."[203] No permit scheme is generally available to permit incidental take, so most potential violators have no mechanism to ensure that

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and to other persons; a requirement of reasonable care under the circumstances of this case does not offend the Constitution.").

[200] *See Mahler*, 927 F. Supp. at 1583 n.9 (noting that the *FMC* court's "limiting principle . . . of strict liability for hazardous commercial activity . . . . ha[s] no apparent basis in the statute itself or in the prior history of the MBTA's application since its enactment."). *See generally United States v. Rollins*, 706 F. Supp. 742, 744–45 (D. Idaho 1989) ("The statute itself does not state that poisoning of migratory birds by pesticide constitutes a criminal violation. Such specificity would not have been difficult to draft into the statute."). Congress could have written the MBTA to explicitly apply to "extrahazardous activities." It did not. Relying on the judiciary to recast the MBTA in this manner is contrary to the longstanding guidance of the Supreme Court:

> It would certainly be dangerous if the legislature could set a net large enough to catch all possible offenders, and leave it to the courts to step inside and say who could be rightfully detained, and who should be set at large. This would, to some extent, substitute the judicial for the legislative department of the government.

United States v. Reese, 92 U.S. 214, 221 (1876).

[201] The court in *Corbin Farm* held that use of pesticides resulting in the deaths of migratory birds could constitute violations the MBTA. 444 F. Supp. at 532–36 (E.D. Cal. 1978). *But see Rollins*, 706 F. Supp. at 744–45 (holding that the MBTA was unconstitutionally vague as applied to a farmer who used due care in applying pesticides that subsequently killed migratory birds).

[202] *See Rollins*, 706 F. Supp. at 745 (dismissing charges against a farmer who applied pesticides to his fields that killed a flock of geese, reasoning "[f]armers have a right to know what conduct of theirs is criminal, especially where that conduct consists of common farming practices carried on for many years in the community. While statutes do not have to be drafted with 'mathematical certainty,' *Boyce Motor Lines, Inc. v. United States*, 342 U.S. 337, 340, 96 L. Ed. 367, 72 S. Ct. 329 (1952), they must be drafted with a 'reasonable degree of certainty.' *Id.* at 340. The MBTA fails this test. . . . Under the facts of this case, the MBTA does not give 'fair notice as to what constitutes illegal conduct' so that [the farmer] could 'conform his conduct to the requirements of the law.' *United States v. Dahlstrom*, 713 F.2d 1423, 1427 (9th Cir. 1983).").

[203] 16 U.S.C. § 703(a) ("Unless and except as permitted *by regulations* made as hereinafter provided . . . ." (emphasis added)). FWS published a notice of intent to develop a programmatic environmental impact statement that analyzed alternatives for developing an incidental take permit regulation under the MBTA in 2015. 80 Fed. Reg. 30,032 (May 26, 2015). Neither the statement nor regulations were issued.

their actions comply with the law.[204] There are "voluntary" Fish and Wildlife Service guidelines issued for different industries that recommend best practices to avoid incidental take of protected birds; however, these guidelines do little to cure infirmities in the law. First, as a preliminary matter, the degree to which such guidelines are truly "voluntary" when non-compliance is accompanied by a credible threat of prosecution is, at best, debatable.[205] Second, Fish and Wildlife Service's MBTA Guidelines rarely go through the formal Administrative Procedure Act processes to be considered "regulations," and are not issued under the permitting authority of Section 3 of the MBTA.[206] Unlike other statutes, the MBTA is an all-or-nothing proposition. In the absence of a permit issued pursuant to Department regulation it is not clear that there is any authority to require minimizing or mitigating actions that balance the environmental harm from the taking of migratory birds with the other societal goals, such as the production of wind or solar energy.[207] Accordingly, the guidelines do not provide enforceable legal protections for

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[204] Anderson & Birchell, *supra* note 79, at 69 ("FWS has not, to date, perceived authority to issue permits for 'non-purposeful' takings that are incidental to conducting a lawful activity such as operating energy or mining facilities. Thus, each incidental taking of a bird protected only by the MBTA is a potential criminal violation of the Act."). For example, *compare* 16 U.S.C. § 703(a) *with* 30 U.S.C. § 225 (2017) ("All leases of lands containing oil or gas, made or issued under the provisions of this Act, shall be subject to the condition that the lessee will, in conducting his explorations and mining operations, *use all reasonable precautions* to prevent waste of oil or gas developed in the land, or the entrance of water through wells drilled by him to the oil sands or oil-bearing strata, to the destruction or injury of the oil deposits." (emphasis added)); 43 U.S.C. § 1732(b) ("In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."); 54 U.S.C. § 306107 (2017) ("Prior to the approval of any Federal undertaking that may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall *to the maximum extent possible* undertake such planning and actions as may be necessary to minimize harm to the landmark." (emphasis added)).

[205] *See* Anderson & Birchell, *supra* note 79, at 75 ("The *Apollo* decision supports the government's approach to industrial avian takings that has developed over the past two decades: provide notice to industry of the risks posed by facilities and equipment, encourage compliance through remediation, adaptive management and, where possible, permitting, and *reserve for prosecution those cases in which companies ignore, deny, or refuse to comply with a [Best Management Practices] approach to avian protection in conducting their business*." (emphasis added)); Ogden, *supra* note 6, at 29 ("[D]iscretion has been used in conjunction with efforts to obtain the voluntary cooperation of certain parties and industries whose activities have caused, or have the potential to cause, incidental taking by consulting with the agency and taking steps to mitigate such taking. Indeed, prosecutorial discretion is the primary incentive for such cooperation, as reflected in various non-regulatory 'guidelines' that FWS has created as applicable to specific industries or activities . . . .").

[206] *See* Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30,032 (May 26, 2015) (seeking comment on the prospect of establishing a regulatory program to permit certain incidental takings). *See generally* Ogden, *supra* note 6, at 29 (characterizing Fish and Wildlife guidelines as "non-regulatory"). *But see* 50 C.F.R. § 21.15 (authorizing take incidental to military-readiness activities).

[207] Anderson & Birchell, *supra* note 79, at 69 ("FWS has not, to date, perceived authority to issue permits for 'non-purposeful' takings that are incidental to conducting a lawful activity such as operating energy or mining facilities. Thus, each incidental taking of a bird protected only by the MBTA is a potential criminal violation of the Act."). For example, *compare* 16 U.S.C. § 703(a) *with* 30 U.S.C. § 225 (2017) ("All leases of lands containing oil or gas, made or issued under the provisions of this Act, shall be subject to the condition that the lessee will, in conducting his explorations and mining operations, *use all reasonable precautions* to prevent waste of oil or gas developed in the land, or the entrance of water through wells drilled by him to the oil sands or oil-bearing strata, to the destruction or injury of the oil deposits." (emphasis added)); 43 U.S.C. § 1732(b) ("In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."); 54 U.S.C. § 306107 (2017) ("Prior to the approval of any Federal undertaking that may directly and

people and businesses who abide by their terms. To wit, the guidelines themselves disclaim that "it is not possible to absolve individuals or companies" from liability under the MBTA.[208] Rather, the guidelines make explicitly clear that, while the Fish and Wildlife Service and the Department of Justice will take compliance into consideration in exercising their prosecutorial discretion, they retain the ability to prosecute individuals and companies, even if they fully comply with the terms therein.[209]

This is the epitome of vague law. Under this approach, it is literally impossible for individuals and companies to know what is required of them under the law when otherwise lawful activities necessarily result in some accidental bird deaths. Even if they comply with everything requested of them by the Fish and Wildlife Service, they may still be prosecuted, and

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adversely affect any National Historic Landmark, the head of the responsible Federal agency shall *to the maximum extent possible* undertake such planning and actions as may be necessary to minimize harm to the landmark." (emphasis added)).

[208] Even if incidental takings were authorized by a regulatory permit process, the 2015 proposal would not have met the due process standards described above. For example, the Fish and Wildlife Service's notice of proposed rule states: "We note that should we develop a permit system authorizing and limiting incidental take, we would not expect every person or business that may incidentally take migratory birds to obtain a permit, nor would we intend to expand our judicious use of our enforcement authority under the MBTA." Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30,032, 30,034 (May 26, 2015). The notice further provides "our permit program, if implemented, will focus on industries and activities that involve significant avian mortality and for which reasonable and effective measures to avoid or minimize take exist." *Id.* Under this scheme, it seems that favored industries and persons would likely be exempted from enforcement by negative implication and the "judicious" use of prosecutorial discretion, while others might be subject to stringent mitigation regimes and prosecutions. Further, individuals outside of those specific regulated industries would be in the same position they are today, left to rely on the discretion of the Fish and Wildlife Service and Department of Justice to avoid prosecution. Even if some of these issues could be addressed, crafting any sort of permit program within Constitutional confines would be a challenge given the sheer breadth of actions that result in incidental takings of birds covered by the MBTA.

[209] *See, e.g.*, U.S. FISH AND WILDLIFE SERVICE, LAND-BASED WIND ENERGY GUIDELINES 6 (Mar. 23, 2012) ("The Service urges voluntary adherence to the Guidelines and communication with the Service when planning and operating a facility. While it is not possible to absolve individuals or companies from MBTA or BGEPA liability, the Office of Law Enforcement focuses its resources on investigating and prosecuting those who take migratory birds without identifying and implementing reasonable and effective measures to avoid the take. The Service will regard a developer's or operator's adherence to these Guidelines, including communication with the Service, as appropriate means of identifying and implementing reasonable and effective measures to avoid the take of species protected under the MBTA and BGEPA. The Chief of Law Enforcement or more senior official of the Service will make any decision whether to refer for prosecution any alleged take of such species, and will take such adherence and communication fully into account when exercising discretion with respect to such potential referral." (footnote omitted)); Memorandum from Jamie Rappaport Clark, Director, Fish and Wildlife Service, to Regional Directors, Regions 1-7, Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers 2 (Sept. 14, 2000), *available at* https://www.fws.gov/habitatconservation/com_tow_guidelines.pdf ("While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.").

still found guilty of criminal conduct.[210] The absence of clear, public, and binding standards effectively authorizes or encourages discriminatory enforcement, particularly against disfavored industries or persons.[211] In sum, due process "requires legislatures to set reasonably clear guidelines for law enforcement officials and triers of fact in order to prevent 'arbitrary and discriminatory enforcement.'"[212] Current governmental practice suggests that the application of the MBTA to incidental activities fails to satisfy this requirement. As the Supreme Court has recognized, "[w]ell-intentioned prosecutors and judicial safeguards do not neutralize the vice of a vague law."[213]

Reading the MBTA to capture incidental takings casts an astoundingly large net that potentially transforms the vast majority of average Americans into criminals. Rather than relying on clear standards that are known in advance, prosecutors are asserting authority to bring cases where individuals and companies are not taking the precautions that the government and the court deem "reasonable."[214] This approach effectively substitutes the judgment of the court

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[210] *See generally* Anderson & Birchell, *supra* note 79, at 70 ("At trial, the jury [in *FMC*] was instructed not to consider the company's [Avian Protection Plan] efforts as a defense: 'Therefore, under the law, good will and good intention and measures taken to prevent the killing of the birds are not a defense.'" (quoting *FMC*, 572 F.2d at 904)).

[211] As some commentators have noted, "the lack of prosecutions of wind energy developers or operators creates a strong inference that prosecutorial discretion is being exercised unevenly to favor wind energy over other activities such as the oil and gas industry." Ogden, *supra* note 6, at 37; *see also* Alexander K. Obrecht, *Migrating Towards an Incidental Take Permit Program: Overhauling the Migratory Bird Treaty Act to Comport with Modern Industrial Operations*, 54 NAT. RESOURCES J. 107, 120 (2014) ("To date, the FWS has focused its prosecutions of MBTA violations on a handful of industries: wastewater storage, oil and gas, electricity transmission, and pesticide application." (footnotes omitted)). *See generally* Benjamin Means, Note, *Prohibiting Conduct, Not Consequences: The Limited Reach of the Migratory Bird Treaty Act*, 97 MICH. L. REV. 832, 836 (1998) (expressing concern that "prosecutorial discretion is less than ideal," particularly in a "pro-environment climate where, 'each year the Department of Justice announces "record levels" of fines imposed, persons indicted, and jail time served for infractions of environmental regulations." (quoting Timothy Lynch, *Polluting Our Principles: Environmental Prosecutions and the Bill of Rights*, 15 TEMPLE ENVTL. L. & TECH. J. 161, 161 (1996)); Gregory A. Zafris, Comment, *Limiting Prosecutorial Discretion Under the Oregon Environmental Crimes Act: A New Solution to an Old Problem*, 24 ENVTL. L. 1673, 1674 (1994) ("The breadth and complexity of environmental law further combine with its unique political nature to increase the chance that prosecutors will abuse their discretion if left completely unchecked."); Timothy Lynch, *Polluting Our Principles: Environmental Prosecutions and the Bill of Rights*, 15 TEMPLE ENVTL. L. & TECH. J. 161, 168, 170 (1996) (noting that "[o]wners and executives of small businesses are particularly vulnerable to prosecution when the law is unclear" and that some prosecutors "might allow public opinion and potential media coverage to affect their charging decisions"). Since Ogden's article was published in 2013, there have been at least two prosecutions of wind-energy companies. *See* E. Lynn Grayson, *Another Criminal Convention Under the Migratory Bird Treaty Act for Wind Farms*, LexisNexis Legal Newsroom (Mar. 3, 2015), *available at* https://www.lexisnexis.com/legalnewsroom/criminal/b/criminal-law-blog/archive/2015/03/03/another-criminal-conviction-under-the-migratory-bird-treaty-act-for-wind-farms.aspx.

[212] *Smith v. Goguen*, 415 U.S. 566, 572–73 (1974).

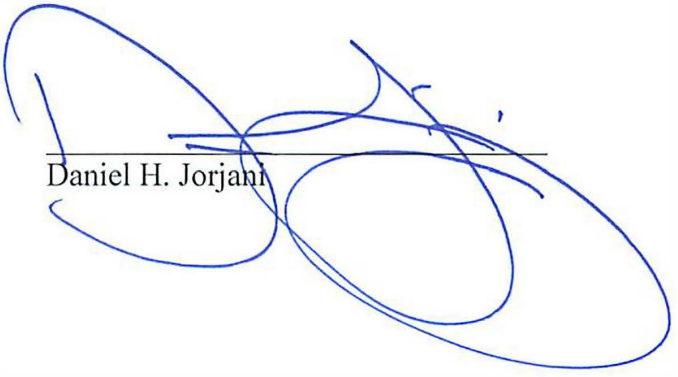
[213] *Baggett v. Bullitt*, 377 U.S. at 373.

[214] *See Apollo Energies*, 611 F.3d at 691 (upholding the conviction of Apollo Energies because "the record shows [Apollo] had notice of the heater-treater problem for nearly a year-and-a-half before the bird death resulting in its conviction. Indeed, Apollo admitted at trial that it failed to cover some of the heater-treaters' exhaust pipes *as Fish and Wildlife had suggested* after the December 2005 inspection. In effect, Apollo knew its equipment was a bird trap that could kill.").

for that of the Congress, which made the MBTA a strict-liability offense and did not provide for mitigation measures. Such an approach presents precisely the sort of recipe for arbitrary and discriminatory enforcement that the Supreme Court has cautioned against.

V. Conclusion

The text, history, and purpose of the MBTA demonstrate that it is a law limited in relevant part to affirmative and purposeful actions, such as hunting and poaching, that reduce migratory birds and their nests and eggs, by killing or capturing, to human control. Even assuming that the text could be subject to multiple interpretations, courts and agencies are to avoid interpreting ambiguous laws in ways that raise grave Constitutional doubts if alternative interpretations are available. Interpreting the MBTA to criminalize incidental takings raises serious due process concerns and is contrary to the fundamental principle that ambiguity in criminal statutes must be resolved in favor of defendants. Based upon the text, history, and purpose of the MBTA, and consistent with decisions in the Courts of Appeals for the Fifth, Eighth, and Ninth circuits, there is an alternative interpretation that avoids these concerns. Thus, based on the foregoing, we conclude that the MBTA's prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control.



Daniel H. Jorjani

THE SECRETARY OF THE INTERIOR
WASHINGTON

FEB 0 6 2017

Memorandum

To: Acting Solicitor

From: K. Jack Haugrud, Acting Secretary

Subject: Temporary Suspension of Certain Solicitor M-Opinions Pending Review

To facilitate the regulatory review process first announced by the President's Chief of Staff by memorandum dated January 20, 2017, and the review directed by the President on January 24, 2017, in his "Presidential Memorandum Regarding Construction of the Dakota Access Pipeline," I hereby suspend and temporarily withdraw the following Opinions of the Solicitor issued after November 6, 2017, to enable agency officials appointed or designated by the President after 12 noon on January 20, 2017, to review the opinions and the underlying regulations or decisions to which they apply:

- M-37042
- M-37041
- M-37039
- M-37038

Each of these opinions was written in part to support regulations, decisions, or nationwide guidance or policies that are currently under review by the new Administration. The temporary withdrawal should remain in place until the Secretary, Deputy Secretary, or Solicitor has completed their review, and determined whether the opinion should be reinstated, modified, or revoked. Please ensure that the Solicitor's website reflects the temporary withdrawal. My directive is made under the authority of Section 2 of Reorganization Plan No. 3 of 1950 (64 Stat. 1262), 209 DM 3.2, and other applicable authorities.

Verizon Wireless
3245 158th Ave SE, MS 231
Bellevue, WA 98008

February 4, 2019

Via Email c/o Darren Gurnee, Planner
dgurnee@co.kitsap.wa.us

Kitsap County, WA Planning Commission
Re: Kitsap County WA Wireless Code Ordinance

Dear Commissioners,

Thank you for the opportunity to provide feedback on the wireless code update. Verizon appreciates the chance to provide information about the enormous increase in consumer demand for data capacity and cell service, as well as input on the technical requirements for the new small cell technology. Verizon supports the general direction and language of the draft code and is appreciative of the effort by staff to address the needs of the wireless industry.

This new technology is vital to address the coverage and capacity needs of Verizon's customers. More people are using more wireless devices to do more things than ever before, like streaming video and uploading images. In fact, wireless data usage tripled from 2013 to 2015 and is forecast to multiply seven-fold from 2015 to 2019.

While Verizon Generally supports the changes being proposed, the proposed language does contains provisions that are inconsistent with the most recent FCC order and that are not technically workable for some forms of wireless deployments. We have include specific comments in the attached document in line with the language that is currently proposed for your review.

Verizon requests an opportunity to meet with staff and industry representatives to go through the requested changes before the Commission makes its recommendation to Council. We have found that a collaborative meeting with city staff, representatives of the wireless industry, and representatives of the local power utility are very helpful in working through these kinds of technical concerns.

We would like to thank the Planning Commission and Staff for their efforts in working through this highly technical topic. We look forward to continued engagement throughout the County's adoption process.

Sincerely,

Lelah Vaga
Verizon Wireless

KITSAP COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

ATTACHMENT C1 – DRAFT CODE FOR PLANNING COMMISSION REVIEW

Changes from the preliminary draft reviewed on January 8, 2019 are shown in red.

Language required by FCC regulations highlighted yellow.

UPDATE TO KITSAP COUNTY CODE
CHAPTER 17.530 'WIRELESS COMMUNICATION FACILITIES'
-- TABLE OF CONTENTS --

CHAPTER 17.530 WIRELESS COMMUNICATION FACILITIES.

(full repeal and replace of 17.530)

Sections:

17.530.010 Purpose and Applicability

A. Purpose. This chapter includes regulations and development standards for wireless communication facilities (facilities) and related equipment. This chapter applies to facilities located inside and outside a county right-of-way (ROW). These regulations and development standards intend to:
   1. Allow for a variety of facility types in many locations.
   2. Reduce, preferably eliminate, the visual impact of facilities to surrounding properties.
   3. Encourage creative approaches to locating facilities in ways that are compatible with the surroundings.
   4. Encourage and facilitate collocation of antennas, support structures and related equipment on existing tower-based facilities or other structures that already support at least one non-tower facility.
   5. Provide a process with substantial public participation to locate and identify new site locations in a comprehensive manner.
   6. Require the use of stealth technology.

B. Exemptions. Each of the following are exempt from the regulations of this chapter and shall not require a permit under this chapter:
   1. Maintenance or replacement of the existing related equipment with new related equipment that has identical dimensions and appearance, or smaller dimensions and a less intrusive appearance. While a letter of exemption is not required, the maintenance or replacement shall otherwise comply with all applicable regulations.
   2. Military and civilian radar, operating within the regulated frequency ranges, for the purpose of defense or aircraft safety.
   3. Amateur and citizen band transmitters and antennas, satellite dishes or similar communication facilities used for noncommercial purposes.
   4. Two-way communication transmitters used on a temporary basis by "911" emergency services, including fire, police, and emergency aid or ambulance service.
   5. Antennas located wholly within another structure, and not visible from the outside.
   6. Emergency communications equipment during a declared public emergency.
   7. A temporary, commercial wireless facility installed for providing coverage of a special event such as a fair, news coverage or sporting event. The wireless facility shall be

Comment [LV1]: Applicants locate sites based on the needs of their networks. The process cannot be comprehensive, because it is based on individual carrier need. The public can and should have participation in approval of new macro sites.

exempt from the provisions of this chapter for up to two weeks before and after the duration of the special event.

8. A temporary, commercial wireless facility installed for a period of 180 days, subject to renewals at the County's discretion, to provide service during repair, replacement, or relocation of an existing facility or construction of a new facility.

C. Prohibited locations and structures.

1. A facility shall not locate:
   a. On single-family residences or on any residential accessory structure.
   b. On real property or structures listed, or eligible for listing, on the:
      i. National or Washington Registers of Historic Places.
      ii. Official historic structures or historic districts lists maintained by the county.
   c. Where the visual impacts analysis required by Section 17.530.040(B) concludes that a more than moderate visual impact will occur and cannot be mitigated.
2. Tower based wireless communication facilities are prohibited:
   a. When it meets the definition of a guyed-tower.
   b. In areas where utility lines are predominantly located underground.
   c. Within 200 feet of the shoreline, as defined in KCC Title 22 'Shoreline Management Program'.
   d. Within a critical area or its buffer, as defined in Title 19 'Critical Areas Ordinance'.
   e. Within 300 feet of the boundary line of a municipal park unless the tower-based facility is disguised through stealth technology as a tree or natural feature that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.
3. Related equipment is prohibited in a right-of-way within 150 feet of a park boundary line, unless the applicant acquires written consent of the County Engineer and the appropriate park director.

D. Other regulations.

1. This chapter regulates only the land use permit from the department. A wireless communication facility may require other permits or review under other local codes or under state or federal law. This includes:
   a. Chapter 14.04 'Technical Building Codes' regarding building permits.
   b. Chapter 18.04 'State Environmental Policy Act' regarding environmental review.
   c. Title 11 'Roads, Highways, and Bridges' regarding right-of-way permits.
2. Chapter 21.04 'Project Permit Application Procedures' shall not apply unless specifically stated in this chapter.

17.530.020 Nonconforming Uses and Structures

A. The non-conforming provisions of Chapter 17.570 'Nonconforming uses, structures and use of structures' apply except as provided in this section.

B. Non-conforming wireless communication facilities damaged or destroyed after [INSERT ADOPTION DATE] due to any reason or cause may be repaired and restored at the same location. The wireless communication facility (facility) shall otherwise comply with the terms and conditions of this chapter. A complete application, as provided in Section

Comment [LV2]: The wireless industry routinely works with SHIPO and local historic review boards to place wireless facilities on historic buildings in ways that are acceptable to the state, local authorities and the building owners. In many of our historic neighborhoods and downtowns, collocation on the rooftop of a historic building is the most appropriate way to provide wireless capacity with the minimum possible visual impact. While Verizon supports extensive review in these chases, we do request that a path be allowed, as opposed to a full prohibition.

Comment [LV3]: While guyed towers are not frequently needed, they are a useful technology in rural areas with significant wings. We would request that they be permitted, but with a higher standard of review and requirements for bird strike mitigation.

Comment [LV4]: Verizon is in agreement with the intent of this language, but suggests that the stealth technology not be specifically limited to natural features. Often steathing that is compatible with the existing build elements of a park are less visually impacting than faux vegetation. Examples of these kinds of installations would include collocations on ballfield light standards or screened rooftop collocations on existing park building. We suggest the language be modified to "as a tree or natural feature, or other stealth structure"

17.530.030 'Permitting,' to reconstruct the facility shall be filed with the department within one year from the date the structure was destroyed.

C. Non-tower and small wireless facilities shall be allowed to collocate upon any existing non-conforming base station or tower-based facilities.[1]

17.530.030 Permitting

A. Permits required. An applicant shall obtain a land use permit from the department prior to the installation or construction of any wireless communication facility (facility). This chapter requires a(n):
   1. Letter of exemption to:
      a. Collocate a non-tower facility that does not substantially change an existing, approved facility.
      b. Collocate a small wireless facility on any existing structure.
      c. Replace a wireless support structure with an identical support structure.
   2. Administrative conditional use permit (ACUP) to:
      a. Collocate a non-tower facility that substantially changes an existing, approved facility.
      b. Collocate a non-tower facility on an existing structure that has not previously been approved as a facility.
      c. Construct a small wireless facility on a new structure.
      d. Locate a tower-based facility within 500 feet of an existing tower-based facility.
      e. Construct a tower-based facility disguised through stealth technology as a tree or natural feature that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.
   3. Conditional use permit (CUP) to construct a tower-based facility that does not qualify for an administrative conditional use permit (ACUP) in section 17.530.030 2.

Comment [LV5]: Verizon requests that new small cell facilities require a letter of exception, rather than an ACUP. Our primary concern is that and ACUP is a outsized process for this kind of facility, and that an ACUP process, to include all appeal timelines, is not likely to be in conformance with the shot clock timelines set by the FCC (90 days for all review).

[1] (The substance of this language is required by federal law and cannot be changed. See 47 CFR 1.40001 (which, effective 1/14/19 will become 47 CFR 1.6100) and FCC 14-153 at 86-87.)

Table 1 Wireless Communication Facility (facility) Permit Review Summary				
Type of Facility	Number of Days for Decision 17.530.030 (H)	Land Use Permit		
		Letter of Exemption	ACUP	CUP
Replacement of wireless support structure with an identical support structure.	60	X		
Collocation:				
New or replacement non-tower facility that does not substantially change existing facility.	60	X		
New or replacement non-tower facility that substantially changes an existing facility	90		X	
A new non-tower facility on a structure not previously approved for facility use.	90		X	
Small wireless facility on any existing structure.	60	X		
New facility and support structure:				
Small wireless facility on a new structure.	90		X	
A tower-based facility within 500 feet of an existing tower-based facility.	150		X	
a tower-based facility disguised through stealth technology as a tree or natural feature that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.	150		X	
Tower-based facility that does not qualify for the Administrative Conditional Use Permit (ACUP) process.	150			X

B. Pre-application Meeting. A pre-application meeting (see Section 21.04.120) is encouraged, not required. The meeting may occur by telephone or in person as deemed necessary by the department. The department shall indicate in writing when it agrees that a particular document or specific information is not required for an adequate review of the application.

C. Applications for a letter of exemption.

1. Where a new or replaced non-tower facility is proposed that does not substantially change an existing facility, the application for a letter of exemption shall contain all information necessary to determine compliance with 47 USC 1455(a) and 47 CFR 1.40001[2], as now or hereafter amended. While no further information in the application is required, all facilities shall comply with Section 17.530.040 'General Development Standards' except for subsections A, B, and D.

[2] As of 1/14/19, this reference will change to 47 CFR 1.6100

2. Where a small wireless facility on an existing structure is proposed, the application for a letter of exemption shall contain all necessary information to verify that the facility meets the definition of a small wireless facility and to determine compliance with this chapter.
3. Where the replacement of a support structure with an identical support structure is proposed, the application for a letter of exemption shall contain engineer-stamped structural drawings that include:
   a. The existing support structure and the proposed support structure.
   b. Descriptions of each structure not shown on the drawings.
   c. A description of all existing and proposed facilities to be placed on the proposed support structure.

D. Applications for an administrative conditional use permit (ACUP). An ACUP application shall contain all information necessary to determine compliance with this chapter. Unless noted otherwise the application requires at least:
1. A site plan drawn to scale.
2. A landscape plan drawn to scale.
3. Except for small wireless facilities, a report describing the proposed facility with technical reasons for its design. The report shall justify the height, dimension, and location of the proposed facility.
4. Documentation that the proposed facility complies with all applicable state and federal laws and regulations, including radio frequency emissions and aviation safety.
5. Documentation that the proposed facility complies with this chapter.
6. A visual impact analysis as described in Section 17.530.040 B.1.
7. A seal and signature of a professional structural engineer, licensed in the State of Washington, on all construction documents for structures.
8. When the facility is located on property not owned by the applicant, a copy of the document that grants the applicant authority to use all areas proposed and needed to comply with this chapter, including but not limited to screening, setbacks, and access.
9. If the applicant is not a carrier, proof that an agreement exists between the applicant and a carrier committing the carrier to use the proposed facility in carrier's service network. This submittal item cannot be waived. An application will not be approved without such commitment.
10. A State Environmental Policy Act (SEPA) checklist when required by WAC 197-11-800, as now or hereafter amended, and Chapter 18.04 of Kitsap County Code.

E. Applications for a conditional use permit (CUP). A CUP application shall contain all information necessary to determine compliance with this chapter. The application requires at least:
1. All information required in Section 17.530.030 D 'Applications for an ACUP'.
2. Documented actual and reasonable efforts to collocate the facility. The documentation shall demonstrate that the applicant contacted the owners of and sought permission to install a facility on:
   a. All existing wireless support structures.
   b. Other tall structures or buildings within a one-mile radius of the proposed site.

Comment [LV6]: In order to deploy wireless facilities in a timely manner, the project team often conducts lease negotiation and city approvals in parallel. This can reduce the overall planning period on a project by several months and allow for faster deployment of needed facilities. Verizon recommends that a letter of authorization from the property owner be allowed in place of lease documents.

Comment [LV7]: Due to the ongoing densification of our networks Verizon often has targeted search areas that are much smaller than one mile. This is the result of the network densification in progress, and the trend towards more sites, at a lower heights to add more capacity to a smaller geographic area. While a 1 mile radius was more appropriate in the past when one tall site would serve many miles in all directions, it is not in keeping with current technology. Verizon recommends that this requirement be reduced to ½ mile.

3. Propagation studies. The application shall include at least one propagation study that shows wireless coverage or capacity.
   a. The propagation studies shall include, at a minimum, the following information:
      i. The current service and the service for at least two adjustment options at existing sites, if possible.
      ii. A description of the type and manufacturer of the proposed transmission/radio equipment.
      iii. The frequency range (megahertz band) assigned to the carrier.
      iv. The power, in watts, at which the carrier transmits.
      v. Any relevant related tests conducted by the applicant or carrier in determining the need for the proposed site and installation. All reasonable designated confidential proprietary information may be redacted.
   b. Only an adjustment will be allowed if a study demonstrates that the adjustment will eliminate a service gap.
   c. An adjustment may be required as a condition of approval if a study demonstrates that the adjustment will reduce the service gap.

4. Future collocation. The application shall include:
   a. Documentation that the applicant requested Kitsap 911 to determine the feasibility of collocating emergency service communications facilities. The proposed tower-based facility location and technical specifications shall be included with the request.
   b. A written commitment that the applicant will allow other antennas to collocate on the tower-based facility where technically feasible.

5. FCC-license. Each applicant that proposes a tower-based facility shall submit a copy of its FCC license for the proposed location. The license shall include the name, address, and emergency telephone number for the operator of the facility.

F. Fees. All applications for permits or requests for actions by the county shall be accompanied by a filing fee in an amount established by county resolution.

G. Notice.
   1. Letters of exemption shall not require public notice.
   2. ACUPs and CUPs. Within 14 calendar days from the submission of a complete application, the department shall:
      a. Mail notice to every property owner within 800 feet of the proposed facility.
      b. Post notice on the property.

      The applicant is responsible for all costs associated with such notice. All notices shall contain the applicable information required by Section 21.04.210 'Notice of Application' or be a summary postcard with a link to such information.

H. Time for review.
   1. Completeness.
      a. The county shall notify the applicant in writing of any information that is required to complete an application within ten calendar days of filing the application. The permit application automatically expires if the applicant fails to submit the requested information within 30 days of the department's written request.

Comment [LV8]: The 9th Circuit significant gap in service test was rejected for all facilities in the latest FCC Order. Suggest the language be aligned with the 10th Circuit "materially inhibit" test.

As it relates to macro facilities, a test for significant gap in coverage is out of keeping with the current nature of the technology. In many cases, particularly rural areas, Verizon has coverage, but that coverage does not provide sufficient capacity for the needs of our customers.

As a business, Verizon builds based on needs of the business. New facilities represent a significant capital investment and are only proposed where there is a legitimate need, driven by our customer demands and network performance, for that investment. Often wireless coverage can help bridge the digital divide in rural areas by providing a high capacity wireless network where land line builds are cost prohibitive.

Verizon recommends that this requirement be removed in order to better facilitate and encourage investment in improved network capacity in rural communities.

b. Prior to the expiration date, the applicant may request an extension to provide the required information. The department may grant up to one 30-day extension if it is determined that the required studies or information warrants additional time. Financial hardship shall not be considered for extensions of deadlines.
c. Once the applicant has submitted the required information, the county shall notify the applicant within 10 days of the submittal if the application remains incomplete.
d. The time tolled between the date of the County's written notifications to the date all requested information is received shall not count towards the number of days an application is in review for a decision.

2. Letters of Exemption. Once a complete application has been filed, regardless of the deadlines for notice, the county has 60 calendar days, after accounting for the tolling provided above and restart time in review per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.
3. ACUPs. Once an initial application has been filed, the county has 90 calendar days, after accounting for the tolling provided above and restart time in review per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.
4. CUPs. Once an initial application has been filed, the county has 150 calendar days, after accounting for the tolling and restart time in review per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.
5. Restart time in review.[3]
   a. Small wireless facilities. Submittal of information requested through sections 17.530.030 H.1.a. and 17.530.030 H.1.c. shall restart the time in review of an application once. Requests for information by the county after the first restart shall not restart the time in review of an application again.
   b. All other facilities. Submittal of information requested through 17.530.030 H.1.a. and 17.530.030 H.1.c. shall not restart time in review of an application.
6. Batching. Applicants for small wireless facilities may batch requests into a single application.[4]

I. Experts. The department may hire any consultant(s) and/or expert(s) necessary to assist the department in reviewing and evaluating an application for a proposed facility. The applicant and/or owner of the facility shall reimburse the county for all reasonable and actual costs of the county's consultant(s) in providing expert evaluation and consultation in connection with these activities.

Comment [LV9]: Verizon requests that application and review be batched, but that approvals be granted in such a way as to allow for individual node approvals.

[3] For small cells, however, the 60 days starts over if the county notifies the applicant within 10 days. Non-tower facilities do not restart. If the county notices the applicant on day 10, then receipt of the information requires decision in 50 days. Compare FCC 18-133 at 80 with FCC 14-153 at 11 and 129.
The 90 and 150 days also do not restart (see FCC 09-99 at 12 and FCC 14-153 at 11).
The proposed new 47 CFR 1.6003 (see FCC 18-133 at 80) includes the review times and tolling rules.
[4] The County can't deny batching for small wireless facility applications. For details see FCC 18-133 at 80. A maximum number of applications can be established by Kitsap County. However, this may result in multiple batches applied for at the same time with the same time in review requirements as the single batched item.

J. Approval. The department may approve, conditionally approve, or deny a permit for a facility. Approval or conditional approval may only be granted when the requirements of this chapter have been met. Approval may be revoked as provided in Kitsap County Code.

K. Permit Duration and extensions. Permits issued under this chapter expire within 12 months from the date issued if construction is not complete at that time. Incomplete construction by the permit expiration date requires submittal of a new permit application. The department may grant one one-year extension when all of the following conditions are met:
   1. The extension request is submitted in writing at least 30 calendar days prior to the expiration of the permit.
   2. Significant concerns with the extension can be mitigated by minor revisions to the permit.
   3. Tangible process has been made toward completion.
   4. An extension would not adversely impact public health, safety or general welfare.

L. Director Interpretations. A director's interpretation per Section 21.04.040 'Directors Interpretations' may resolve disputes regarding the interpretation of this chapter.

M. Appeals. A decision on a letter of exemption or an ACUP may be appealed to the Hearing Examiner in accordance with Section 21.04.290 'Appeals'.

N. Revoked Permit. The County may revoke a permit 17.600.010 'Revocation for noncompliance with conditions'. A facility with a revoked permit shall be considered abandoned and subject to section 17.530.080 B.[5]

17.530.040 General Development Standards

A. Height. Wireless Communication Facilities (facilities) shall not exceed heights authorized in this chapter. Height is measured as the total vertical distance from the ground level, including any base pad, to the highest point of the facility, including any antennas, appurtenances, or related equipment.

B. Visual Appearance. All facilities shall employ the most current stealth technology to be the least visually and physically intrusive. All facilities shall also be aesthetically and architecturally compatible with the surrounding environment and shall be designed to blend with the existing surroundings.
   1. Visual impact analysis.
      a. Compatibility and visual impact shall be determined through a visual impact analysis. The analysis must use maps, photographs, photo-simulation, and other appropriate methods to show the existing topographical contours of the area and areas within a one-mile radius where any portion of the proposed facility can be seen. Line of sight includes from the ground to the rooftop of adjacent buildings.
      b. When more than a moderate visual impact is likely, the visual impact analysis shall include a visual demonstration, such as the erection of a crane, a balloon in a color

[5] Section 17.600.010 'Revocation for noncompliance with conditions' requires a public hearing to revoke a "master plan, performance based development permit, administrative conditional use permit, hearing examiner conditional use permit, or variance granted in accordance with the terms of this title, may be revoked if any of the conditions or terms of such permit or variance are violated, or if any law or ordinance is violated in connection therewith."

similar to that of the proposed structure and of a size not less than four feet and not to exceed six feet, or similar device used to simulate the proposed dimensions and height of the structure. Ten working days prior to the demonstration, the applicant shall notify:

i. The department.

ii. All properties within 800 feet of the parcel where the demonstration will occur. The department shall provide the list of properties within 800 feet.

2. More than moderate visual impact. A facility shall not be considered aesthetically compatible with the surrounding land uses if, within a one-mile radius, it results in more than a moderate visual impact. A "more than moderate" visual impact occurs when one or more of the following exist:

a. The facility becomes a predominant feature in the viewscape.

b. The facility disrupts a largely intact and unobstructed view of visually sensitive areas, which are those locations that provide views of one or more of the following: Puget Sound, lakes, large wetland complexes, major streams, valleys and ravines, large tracts of forested land, Mount Rainier, the Cascade mountain range or the Olympic mountain range. These views are particularly sensitive from certain places of the county, including residential areas, commercial areas, major transportation corridors and arterials in rural areas.

c. The facility is not designed and painted to blend in with the surrounding environment.

d. The facility is sited above visually predominant ridge lines.

e. The facility extends twenty feet or more above the tree line.

f. A non-tower facility is proposed in a visually sensitive area and cannot be completely enclosed within the existing structure or camouflaged as another structure compatible with the surrounding environment.

3. Other visual requirements. A facility must:

a. Place all required stickers or other identifying labels on the underside of related equipment, or away from public view on ground-mounted equipment, and not near ground level if on a tower-based facility.

b. Place and size antennas and related equipment to blend into the architectural detail of the supporting structure. Paint or another coating may be required to be visually compatible with the support structure.

c. Screen electrical meter cabinets to blend with the surrounding area. Use of smart meters are preferred.

d. For proposed fences, the fence must:

i. Be at least six feet in height and no more than eight feet in height.

ii. Be of a nonobtrusive material, such as a dark vinyl coated chain link that blends with the surrounding area.

C. Lighting.

1. This chapter prohibits all artificially lighted facilities except:

a. Permanent 911 public safety facilities. This includes fire, police and emergency medical response services.

Comment [LV10]: We request that this standard be clarified and narrowed, and this description could be read as applying to many of the places in Kitsap County where expanded rural wireless capacity is most needed.

Comment [LV11]: Verizon remains concerned that this provision may limit small cell wireless facilities with advanced ultra wideband technology, as the faces of those antennas cannot be screened.

b. Facilities located at a 700-foot elevation and more than one-half mile from a residential area.

2. The applicant shall provide a detailed plan for lighting if an artificially lighted facility is allowed. The plan shall demonstrate that the proposed lighting does not have a negative impact on adjacent properties and complies with state and federal regulations for lighting. The applicant shall promptly report any outage or malfunction of FAA-mandated lighting to the appropriate governmental authorities and to the county.
3. Any facility needing lighting per FAA regulations shall be altered to avoid the need for lighting unless Section 17.530.040 C.1. applies.
4. The department may allow security lighting for ground mounted related equipment. Security lighting shall be directed away from adjoining properties through shielding and arrangement. No more than one foot-candle of illumination may leave the property boundaries.

D. Noise. Facility operation and maintenance shall comply with Chapter 10.28 'Noise'.

E. Related equipment.

1. Antennas and antenna elements shall be enclosed within the facility.
2. Antennas and antenna elements unable to be enclosed within the facility require the applicant to demonstrate the inability to do so. In such cases, the antenna and antenna elements shall be within a shroud mounted at the top of facility. The shroud:
   a. Shall cover all antenna and antenna elements in a single antenna shroud.
   b. Shall match the support structure color, finish, and visually conceal all contents and/or wiring to the greatest extent possible. A solid shroud is preferred.
   c. Shall be cylindrical for pole facilities and match the pole shaft diameter, when feasible. The shroud diameter shall not exceed 14 inches. Once transitioned from the support structure shaft, the shroud diameter shall remain consistent.
   d. Shall not exceed a height of five feet. For light standards, this dimension is measured from the top of the luminaire mast arm attachment point.
3. Antennas and antenna elements unable to be enclosed within the facility or shrouded at the top of the facility require the applicant to demonstrate the inability to do so. In such cases, a shrouded, externally mounted antenna package may be allowed if:
   a. The shroud protrudes no more than two feet from the outer circumference of the support structure.
   b. The shroud height does not exceed five feet, mounted longitudinally to the structure shaft.
   c. The shroud and all parts of the antennae package are at least seven feet from the ground.
4. A base shroud shall fully enclose all remaining equipment located on the structure. This may include radios not mounted at top of structure, electric meters, grounding equipment, and cut-off switches. The base shroud shall:
   a. Be structurally sound to fully support the proposed structure and maximize equipment volume.
   b. Not exceed a height of six feet from mounting surface.

Comment [LV12]: This regulation would effectively prohibit deployment of towers in large areas near the airport at the heights needed to achieve coverage and capacity objectives. Request deletion.

Comment [LV13]: All of these regulations are inconsistent with the FCC Order's requirement that the aesthetic standards applied to small wireless facilities be the same as those applied to other similar infrastructure in the right of way.

Comment [LV14]: This would effectively prohibit deployment of small wireless facilities on existing utility poles and would require many new poles to achieve the network coverage and capacity objectives. Suggest deletion.

Comment [LV15]: This requirement will effectively prohibit the deployment of 5G in Kitsap County, because 5G antennas cannot be shrouded or painted.

Comment [LV16]: In nearly all cases, a small wireless facility shroud must be larger than 14 inches. This is a restriction that would effectively prohibit deployment of many technologies.

Comment [LV17]: These dimensional standards are not workable for most small wireless facilities.

Comment [LV18]: Cut off switches cannot be placed in the locked radio enclosure. They must be accessible in case work on the pole is needed.

Comment [LV19]: This dimension is inconsistent with the definition of small wireless facility in the FCC Order which caps equipment volume at 28 cubic feet.

c. Match the support structure color, finish, and visually conceal and lock all contents and/or wiring to the greatest extent possible. A solid shroud is preferred.

d. Where the facility is a pole, install a shroud that is cylindrical with a maximum consistent diameter of 16 inches not including small architectural banding features. This diameter may increase up to 20 inches if the location combines multiple carriers or uses.

Comment [LV20]: This standard seems unclear and these dimensions are not workable for most small cell facility deployments.

5. Enclosures separate from the support structure may be allowed if:

a. The applicant demonstrates the inability to enclose or shroud antenna and antenna equipment as prescribed in Section 17.530.040(E)(4).

b. The enclosure is no greater than three feet six inches (3'-6") in any dimension.

Comment [LV21]: This is inconsistent with the volume allowed under the FCC Order.

F. Standard of Care. Facilities shall be designed, constructed, operated, maintained, repaired, modified and removed in strict compliance with all current applicable technical, safety and safety-related codes, and all federal, state and county laws and regulations. These include without limitation the most recent editions of the following:

1. American National Standards Institute (ANSI) Code.
2. National Electrical Safety Code.
3. National Electrical Code.
4. All aviation safety standards.
5. All accepted and responsible workmanlike industry practices of the National Association of Tower Erectors or the Telecommunication Industry Association.

G. Wind and ice. Facility structures shall be designed to withstand the effects of wind gusts and ice. The design shall comply with the American National Standards Institute standard design prepared by the engineering departments of the Electronics Industry Association, and Telecommunications Industry Association (ANSI/EIA/TIA-222, as amended).

H. Engineer signature. Construction documents for structures shall contain a seal and signature of a professional structural engineer, licensed in the State of Washington.

I. Interference. Facilities shall not cause interference with:

1. The county's radio frequency, wireless network, or Kitsap 911 (collectively "county operations").
2. Other facilities or any FCC-licensed devices.
3. Any similar third-party equipment.

J. Radio frequency emissions. The proposed facility, in conjunction with other facilities, shall not generate radio frequency emissions that exceed the standards and regulations of the FCC. These regulations include at least the FCC Office of Engineering Technology Bulletin 65 entitled "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields," as amended.

K. Agreement for facilities on County property. The applicant and the County shall execute an agreement to provide terms and conditions to locate a facility on County property. The agreement must:

1. Be completed prior to construction of the facility.
2. Comply with the regulations in this chapter.
3. Be submitted with the application for the facility.
4. Address the following issues:

a. Facilities are subject to the county's right to fix an annual fee for use and occupancy of the property.
b. A financial security must be submitted to protect the county from the costs and expenses due to a failure to comply with the obligations in this chapter. The amount and form of the financial security shall be decided by mutual agreement. The amount of financial security shall be at least 150% of the cost of the facility unless otherwise agreed.
c. Modifications requested by the county.
   i. The county may determine that a change to a facility in the ROW is reasonably necessary under the following circumstances:
      (a) To facilitate or accommodate the construction, reconfiguration, completion, repair, relocation, or maintenance of a public project within the ROW.
      (b) To accommodate the vacation of ROW or the release of a utility easement.
      (c) As required by applicable laws or to protect or preserve the public health, safety, or welfare.
   ii. Within 60 days of written notice from the county, the owner or operator of a facility in the ROW shall temporarily or permanently change, alter, relocate or remove part or all of the facility. The department may approve up to two 90-day extensions when all of the following conditions are met:
      (a) The extension request is submitted in writing at least 30 calendar days prior to the expiration of the 90 days.
      (b) Any significant concerns with the extension can be mitigated.
      (c) An extension would not adversely impact public health, safety or general welfare.
      (d) Financial hardship shall not be considered for extensions of deadlines.[6]
   iii. Where an emergency exists, following notice from the county, the owner or operator of the facility shall immediately effect a temporary or permanent change, alteration, relocation or removal of part or all of the facility. An emergency includes, but is not limited to, any interference with:
   iv. The proper operation of a county-owned light pole, traffic control device, other county facility.
   v. ROW operations or pedestrian facilities.

17.530.050 Regulations for non-tower and small wireless communication facilities

A. Development regulations. Except as provided in Section 17.530.050(B) 'Development regulations in the public right-of-way (ROW)' and in addition to Section 17.530.040 'General Development Standards,' the following applies to all non-tower wireless communication facilities and small wireless facilities (facilities) for which an ACUP is required.

[6] The 90 day timeframe and two 90 day extensions are consistent with Section 17.530.080 B 'removal'. Other examples in Kitsap County Code regarding extensions include:

- Section 14.04.268 'Permit Expiration' which provides a 180 day extension to complete work for an issued building permit.
- Section 21.04.200 B.2. which provides two 90 day extensions to submit information requested by the county for a permit.

1. Collocation. All facilities shall collocate on existing wireless support structures unless technologically infeasible, in which case the facility may locate on an existing pole or structure.
2. Height. The total height of any facility after installation shall not exceed the maximum height permitted in the underlying zoning district, except where the following are met:
   a. The height will not exceed 20 feet above the roof surface.
   b. No visual impacts to surrounding properties occurs. Visual impact is measured from the ground or roof of an adjacent building.

B. Development regulations in the public right-of-way (ROW). The following regulations apply to all non-tower and small wireless facilities located in the ROW and for which an ACUP is required. If any conflict exists between these regulations and those elsewhere in this chapter, the regulations herein shall control.
   1. Location.
      a. All facilities and related equipment in the ROW shall not cause any physical or visual obstruction to pedestrian or vehicular traffic, create safety hazards to pedestrians and/or motorists, or inconvenience public use of the ROW.
      b. All equipment more than four inches above the ground shall be placed outside of the clear zone or mitigated in accordance with the current edition of the County Road Standards. Ground-mounted related equipment, walls, or landscaping shall be located at least 18 inches from the face of the curb, sidewalk, or paved pathway.
   2. Height. Related equipment located above ground in the public ROW shall be:
      a. Compatible in scale and proportion to the structures upon which they are mounted.
      b. The smallest and least visibly intrusive as determined by the visual impact analysis.
      c. A height not to exceed four feet from finished grade.
   3. Construction time, place and manner. The county shall determine the time, place and manner of construction, maintenance, repair and/or removal of all non-tower facilities in the public ROW based on public safety, traffic management, physical burden on the public ROW, and related considerations. All work shall be performed at the applicant's expense.
   4. Tree Trimming. Tree trimming around facilities shall comply with industry standards. Tree trimming activities that impact traffic require a traffic control plan approved by the Department of Public Works. Trimming that involves a wireless support structure requires submittal of written permission from the owner of the structure to the County. The County shall not be liable for any damages, injuries, or claims arising from the applicant's actions under this subsection.

17.530.060 Regulations for tower-based wireless communication facilities

A. Development regulations. Except as provided in Section 17.530.060(B) 'Development regulations in the public right-of-way (ROW)' and in addition to Section 17.530.040 'General Development Standards,' the following applies to all tower based wireless communication facilities (facilities) for which a CUP is required.
   1. Modification or collocation.
      a. New tower-based facilities are prohibited unless a propagation study shows coverage gaps cannot be filled through other means. Technical evidence shall

Comment [LV22]: This is inconsistent with the FCC Order, which does not require attempts to collocate.

Comment [LV23]: Verizon asks that this be clarified such that it cannot be read to include mounted equipment that is not subject to these rules.

demonstrate the inability to fill coverage gaps through related equipment, such as repeaters or antennas installed on existing structures to extend or infill service.

b. A new tower-based facility within one mile of an existing wireless support structure may not exceed 40 feet in height unless collocation has been actually and reasonably considered and, despite good-faith efforts, the non-tower facility cannot be accommodated on an existing structure or building for one of the following reasons, or cannot be sited on land owned and maintained by the county:
   i. The proposed antenna and related equipment exceeds the structural capacity of the existing building, structure or tower.
   ii. The proposed antenna and related equipment causes radio frequency interference with other existing equipment for that existing building, structure, or tower and the interference cannot be prevented.
   iii. The existing buildings, structures, or towers do not have adequate location, space, access, or height to accommodate the proposed equipment or to allow it to perform its intended function.
   iv. An agreement could not be reached with the owner of such building, structure, or tower after a good faith effort.

2. Location.
   a. The location of a tower-based facility shall be necessary to provide coverage for the gap shown in the propagation study for the service area.
   b. The location shall be the least visually intrusive to the surrounding community or shall be the only viable location to provide coverage for the gap shown in the propagation study.
3. Height.
   a. The propagation study will state a minimum functional height necessary for a tower-based facility to fill a gap in coverage. A tower-based facility shall be constructed to the minimum functional height, not to exceed 40 feet taller than surrounding tree height, and not to exceed 200 feet.
   b. Tower-based facilities over 40 feet in height shall be equipped with an anti-climbing feature.
4. Related equipment.
   a. Ground-mounted related equipment associated, or connected, with a tower-based facility shall be placed underground or screened from public view using stealth technologies.
   b. All related equipment, utility buildings and accessory structures shall be architecturally and aesthetically designed to blend into the environment in which they are situated and meet the minimum setback requirements of the underlying zone.
5. Signs. Tower-based facilities shall post an easily visible emergency contact sign. The sign shall include the name and phone number for a point of contact in case of an emergency. No other sign is allowed except those required by the FCC or other federal or state agencies.
6. Use of property and setbacks.

Comment [LV24]: The tower network will continue to be the backbone of the wireless network. It has battery/generator back up in the event of emergency and power loss, unlike small wireless facilities. The "significant gap" test was rejected in the last FCC Order and should be replaced by the adopted "materially inhibit" test.

This restriction has the practical effect of limiting the types of equipment that Verizon can select to meet its coverage and capacity objectives, which has been held to be an unacceptable exercise of municipal authority under federal law. See New York SMSA Ltd. Partnership v. Town of Clarkston, 612 F.3d 97 (2nd Cir. 2010).

Comment [LV25]: This height limitation is arbitrary and may effectively prohibit the installation of necessary wireless infrastructure. We are particularly concerned about the impact to Small Wireless facilities or hybrid solutions which may be needed to improve capacity

Comment [LV26]: The 9th Circuit "least intrusive means" standard was rejected in the last FCC Order. Request that it be replaced with the "materially inhibits" standard.

As it relates to macro facilities, a test for significant gap in coverage is out of keeping with the current nature of the technology. In many cases, particularly rural areas, Verizon has coverage, but that coverage does not provide sufficient capacity for the needs of our customers.

As a business, Verizon builds based on needs of the business. New facilities represent a significant capital investment and are only proposed where there is a legitimate need, driven by our customer demands and network performance, for that investment. Often wireless coverage can help bridge the digital divide in rural areas by providing a high capacity wireless network where land line builds are cost prohibitive.

Verizon recommends that this requirement be removed in order to better facilitate and encourage investment in improved network capacity in rural communities.

a. Sole use. A tower-based facility may be allowed as the only use on a parcel if:
   i. The parcel is at least 6,000 square feet, and
   ii. The distance between the base of the tower-based facility and the nearest property line is at least 110% of the proposed height of the tower-based facility.

Comment [LV27]: This is not a safety based standard. The setback should be figured from the base of the tower to the nearest building. Also, breakaway engineering places a point on the structure where the top of the tower folds over on itself, rather than falling its full length in the event of a catastrophe. 110% is excessive and unnecessary.

b. Combined use. A tower-based facility may be allowed with an existing use, or on a vacant parcel in combination with another use, subject to the following minimum conditions:
   i. The non-facility use on the property is any allowed use in the zone, except residential, and need not be affiliated with the facility.
   ii. The lot:
      (a) Complies with the dimensional requirements of the zone, and
      (b) Is sufficiently sized to accommodate the tower-based facility and any equipment buildings, security fences, buffers and setbacks.
   iii. The minimum distance between the base of a tower-based facility and the nearest property line is at least 110% of the proposed tower-based facility height or the minimum setback of the underlying zone, whichever is greater.

7. Screening, Landscaping, and Fencing.
   a. Tower-based facilities shall be screened with landscaping or other screening features. This requirement applies to all associated equipment shelters, cabinets, and other ground mounted related equipment.
   b. Existing trees, shrubs, and other vegetation shall be preserved to the maximum extent possible. Removal of existing vegetation requires prior approval from the department. Existing vegetation used to screen shall provide, through size and density, adequate, long-term screening. The existing vegetative buffer shall surround the entire facility and be at least five feet wide.
   c. Screening shall maximize coverage and cover at least 75% of the height of the tower-based facility. Recommended species for screening of tower-based facilities include Douglas fir, Big leaf maple, and Western redcedar. Planting height shall be at least six feet for an evergreen tree or two-inch caliper for a deciduous tree. Deciduous trees shall not exceed 25% of the trees used for screening. An analysis of the ultimate tree height potential, based on soil types, is required.

Comment [LV28]: This is unrealistic for a tall tower that needs to clear the treeline. Mature trees at 50-80 feet in height do not transplant well.

   d. Additional screening may be required to adequately screen adjacent residential properties based on site specific conditions.
   e. The department may allow a combination of existing vegetation, topography, walls, decorative fences or other features instead of landscaping. The combination of features must:
      i. Achieve the same degree of screening.
      ii. Be consistent with surrounding vegetation.
      iii. Not obstruct or interfere with the use of the ROW or county work.
   f. Screening requirements shall be recorded as a covenant running with the permit.
8. Access road. Tower-based facilities shall provide adequate emergency and service access to the facility. An access road, turnaround space and parking shall be provided. The access must:

a. Maximize to the extent practicable the use of existing public or private roads.
b. Match road grades to natural contours to minimize visual disturbance, soil erosion, and stormwater impacts.
c. Where the access road is not owned by the applicant, a copy of an easement authorizing the use of the access road shall be submitted to the County.

9. Parking. One tower-based facility requires at least one off-street parking space.
10. Future use. A proposed tower-based facility shall be designed structurally, electrically, and in all respects to accommodate both the proposed antennas and comparable antennas in the future.

B. Development regulations in the public right-of-way (ROW). The following additional regulations apply to all tower-based facilities located in the ROW. If any conflict exists between these regulations and those elsewhere in this chapter, the regulations herein shall control.

1. Location.
   a. Tower-based facilities are prohibited from locating in the ROW in front of the façade of any structure facing the ROW.
   b. Tower facilities and related equipment in the ROW shall not cause any physical or visual obstruction to pedestrian or vehicular traffic, create safety hazards to pedestrians and/or motorists, or inconvenience public use of the ROW.
   c. All equipment exceeding four inches above the ground shall be placed outside of the clear zone or mitigated in accordance with the current edition of the County Road Standards. Ground-mounted related equipment, walls, or landscaping shall be located at least eighteen inches from of the face of the curb, sidewalk or paved pathway.
   d. Unless approved by the County engineer, ground-mounted related equipment is prohibited in a ROW when:
      i. The ROW width is 50 feet or less.
      ii. Exclusively single-family residential lots front both sides of the street.
2. Height. Tower-based facility height in the ROW shall not exceed 40 feet.
3. Design requirements. Ground-mounted related equipment that cannot be placed underground shall be screened, to the fullest extent possible, through the use of landscaping or other decorative features.
4. Construction. Time, Place and Manner. The county shall determine the time, place and manner of construction, maintenance, repair and/or removal of all tower-based facilities in the ROW based on public safety, traffic management, physical burden on the ROW, and related considerations. All work shall be performed at the applicant's expense.
5. Tree trimming. Tree trimming around facilities shall comply with industry standards. Tree trimming activities that impact traffic require a traffic control plan approved by the Department of Public Works. Trimming that involves a wireless support structure requires submittal of written permission from the owner of the structure to the County. The County shall not be liable for any damages, injuries, or claims arising from the applicant's actions under this subsection.

17.530.070 Maintenance and repair

To the extent permitted by law, the following maintenance and repair requirements shall apply:

A. All wireless communication facilities (facilities) shall be fully automated and unattended. Visitation for maintenance or emergency repairs is allowed.

B. At all times facilities shall be kept and maintained in good condition, order and repair to eliminate danger to life or property. Maintenance and repairs must:

1. Be completed by qualified maintenance and construction personnel.
2. Use the best available technology for preventing failures and accidents.

C. Graffiti. Graffiti on a facility shall be promptly removed at the sole expense of the owner or operator. The owner or operator shall remove graffiti within fourteen calendar days of the date of county notice.

D. Replacement of a support structure with an identical support structure requires a letter of exemption per Section 17.530.030 C. All other support structure replacements require a CUP per Section 17.530.030 E.

17.530.080 Abandonment and Removal

A. Abandonment.

1. Notice of intent to abandon. The owner or operator of a facility shall provide written notice to the department of the intent to abandon a facility.
2. Non-functioning facilities regulated by this chapter that remain unused for a period of 365 days shall be considered abandoned. This presumption may be rebutted by a showing that such utility or device is an auxiliary, back-up, or emergency utility or device not subject to regular use or that the facility is otherwise not abandoned.
3. Effective Date of Abandonment. Abandonment takes effect 30 days after notice is received or after the end of the rebuttable presumption period.

B. Removal.

1. All abandoned facilities, or portions thereof, shall be removed within 90 days of abandonment, unless a time extension is approved. The department may approve up to two 90-day extensions when all of the following conditions are met:
   a. The extension request is submitted in writing at least 30 calendar days prior to the expiration of the 90 days.
   b. Any significant concerns with the extension can be mitigated by minor revisions to the permit.
   c. Tangible process has been made toward abandonment.
   d. An extension would not adversely impact public health, safety or general welfare.
2. Removal shall include restoring all affected property to substantially the same condition as it was immediately before the installation of the facility, including restoration or replacement of any damaged trees, shrubs or other vegetation, unless another arrangement is made with the property owner.
3. Removal and site restoration shall be completed at the sole expense of the owner or operator of the facility.

CHAPTER 17.110 DEFINITIONS.
(removals in ~~strikethrough~~, additions are underlined)

~~**17.110.057 Alternative technology.**~~

~~"Alternative technology" means the use of structures, fixtures, and technology which substantially limit the visibility of wireless communication support structures and facilities. This may include, but is not limited to, use of existing utility poles, flagpoles, existing structures such as water tanks, church steeples and any other method which substantially minimizes the visual impact of wireless communication support structures and facilities. This is commonly referred to as "stealth technology."~~

17.110.073 Antenna[7]

"Antenna" means an apparatus designed for the purpose of emitting radiofrequency (RF) radiation, to be operated or operating from a fixed location pursuant to Commission authorization, for the transmission of writing, signs, signals, data, images, pictures, and sounds of all kinds, including the transmitting device and any on-site equipment, switches, wiring, cabling, power sources, shelters or cabinets associated with that antenna and added to a tower, structure, or building as part of the original installation of the antenna. For most services, an antenna will be mounted on or in, and is distinct from, a supporting structure such as a tower, structure or building. However, in the case of AM broadcast stations, the entire tower or group of towers constitutes the antenna for that station. For purposes of this section, the term antenna does not include unintentional radiators, mobile stations, or devices authorized under part 15 of this title (CFR Title 15).

17.110.103 Base station

"Base station" means the equipment and non-tower supporting structure at a fixed location that enable FCC-licensed or authorized wireless communications between user equipment and a communications network.

17.110.156 Carrier

"Carrier" means a telecommunications company that offers telecommunication services (as defined in 47 USC §153(53)) to users of wireless devices through radio frequency signals. Synonymous terms are mobile service provider, wireless service provider, wireless carrier or mobile carrier.

17.110.168 Collocation.

"Collocation" means the use or addition of one or more wireless communications facilities on any existing structure, whether or not already used as a wireless communication facility.~~use of a single support structure by more than one wireless services provider where appropriate, and/or placement of up to four support structures for collocation on a specific site. This may include shared facilities with Kitsap County central communications or public safety emergency communications equipment.~~

~~**17.110.223 Directional panel antenna.**~~

~~"Directional panel antenna" means, generally, a rectangular antenna designed to transmit and receive radio frequency signals in a specific directional pattern.~~

17.110.227 Distributed Antenna Systems (DAS)

[7] As defined in 47 CFR 1.1320 (d). Relates to small wireless facility.

"Distributed antenna systems" means network of spatially separated antenna sites connected to a common source that provides wireless service within a geographic area or structure.

17.110.228 ~~227~~ Drinking establishments.

"Drinking establishments" means a business primarily engaged in the retail sale of alcoholic beverages for consumption on the premises, including night clubs, bars, and taverns. It shall not mean premises primarily engaged in the retail sale of food for consumption on the premises, where the sale of alcoholic beverages is clearly accessory and incidental (e.g., comprises less than twenty percent of the gross receipts). This definition excludes brew pubs.

17.110.393 Lattice support structure.

"Lattice support structure" means a ~~guyed or~~ self-supporting three or four-sided, open, metal frame structure used to support telecommunication equipment.

~~**17.110.463 Macro antenna array.**~~

~~"Macro antenna array" means an attached wireless communication facility which consists of antennas equal to or less than fifteen feet in height or a parabolic antenna up to forty inches in diameter and with an area not more than one hundred square feet in the aggregate as viewed from any one point.~~

~~**17.110.480 Micro antenna array.**~~

~~"Micro antenna array" means an attached wireless communication facility which consists of antennas equal to or less than four feet in height (except omnidirectional antennas which may be up to six feet in height) and with an area of not more than five hundred eighty square inches in the aggregate.~~

~~**17.110.483 Mini antenna array.**~~

~~"Mini antenna array" means an attached wireless communication facility which consists of antennas equal to or less than ten feet in height or a parabolic antenna up to forty inches in diameter and with an area not more than fifty square feet in the aggregate as viewed from any one point.~~

17.110.484 Minimum functional height

"Minimum Functional Height" means the shortest height at which a proposed wireless communications facility can perform its intended function. Minimum functional height is measured vertically from the ground level to the highest point on the structure, including antennas and subsequent alterations.

17.110.494 Modification

"Modification" means any change made to an existing wireless communications facility (facility). A modification constitutes a substantial change if (1) the change to the facility meets the definition of substantial change herein provided; (2) the change would defeat the existing concealment elements of the facility; or (3) the change does not comply with pre-existing conditions associated with the prior approval of construction or modification of the facility.

17.110.503 Monopole.

"Monopole" means a wireless communications facility that consists of a single pole structure, designed and erected on the ground or on top of a structure, to support communications

antennas and connecting appurtenances. ~~structure composed of a single spire used to support telecommunication equipment.~~

~~**17.110.547 Parabolic antenna.**~~

~~"Parabolic antenna" means an antenna which is a bowl-shaped device for the reception and/or transmission of radio frequency communication signals in a specific directional pattern. (Also known as a "dish antenna.")~~

17.110.656 Related equipment

"Related equipment" means any piece of equipment related to, incidental to, or necessary for the operation of a non-tower wireless communication facility (facility) or tower-based facility. By way of illustration, not limitation, related equipment includes generators.

17.110.687 Stealth technology.

"Stealth technology" means the camouflaging methods applied to wireless communication facilities (facilities) to render them more visually appealing and to blend the proposed facility into the existing structure or visual backdrop in such a manner to render it minimally visible to the casual observer. Such methods include, but are not limited to, architecturally screened roof-mounted antennas, building-mounted antennas painted to match the existing structure and facilities constructed to resemble trees, shrubs, light poles, flag poles, chimneys, church crosses, clock towers, gas station signs, statues, or rocks as appropriate to the surrounding environment. ~~See Section 17.110.057, Alternative technology.~~

~~**17.110.707 Support structure.**~~

~~"Support structure" means a structure designed and constructed specifically to support a wireless communication antenna array, and may include a monopole, self-supporting (lattice) tower, guy-wire support tower and other similar structures. Any device which is used to attach an attached wireless communication facility to an existing building or structure shall be excluded from the definition of and regulations applicable to support structure.~~

17.110.708 Substantially change or substantial change[8]

"Substantially change" or "substantial change" means a modification to an existing wireless communications facility (facility) that changes the physical dimensions of the tower or base station in any of the following ways:

A. Height.
   1. For tower-based facilities outside the public right-of-way (ROW), the modification increases the height of the tower by more than 10%, or by the height of one additional antenna array with separation from the nearest existing antenna, not to exceed 20 feet, whichever is greater.
   2. For tower-based facilities within the ROW and any base station, the modification increases the height of the facility by more than 10% or 10 feet, whichever is greater.
   3. Changes in height shall be measured from the original support structure in cases where deployments are or will be separated horizontally, such as on rooftops. In all other circumstances, changes in height shall be measured from the original height of the

Comment [LV29]: Verizon suggests using the actual language provided by the federal CFR and this paraphrasing in not accurate and may introduce confusion and inconsistency.

[8] The substance of this language is required by federal law and cannot be changed. See 47 CFR 1.40001 and FCC 14.153 at 76.

facility plus any modification approved prior to the passage of the federal Spectrum Act (February 22, 2012).

B. Width.
   1. For tower-based facilities outside the ROW, the modification adds an appurtenance to the body of the tower that protrudes from the edge of the tower by more than 20 feet, or more than the width of the tower structure at the level off the appurtenance, whichever is greater.
   2. For tower-based facilities within the ROW and any base station, the appurtenance protrudes from the edge of the structure by more than 6 feet.

C. Equipment cabinets.
   1. For any facility or base station outside the ROW, the modification involves installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed 4 cabinets.
   2. For any facility or base station within the ROW, the modification involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or involves the installation of ground cabinets that are more than 10% larger in height or overall volume than any other ground cabinets associated with the structure.

D. Excavation.
   1. For any facility or base station, the modification entails any excavation or deployment outside the current site. As used herein, for tower-based facilities outside the ROW, site shall mean the boundaries of the leased area including utility easements; for all other facilities, site shall mean that area adjacent to the structure and within which related equipment already exists.

E. Stealth technology.
   1. For any facility or base station, the modification would defeat any concealment element.

F. Prior conditions of approval.
   1. Except as set forth above, the modification does not comply with conditions of approval for the initial construction or any prior modification.

17.110.721 Tower

"Tower" means any structure built for the sole or primary purpose of supporting one or more antennas and related equipment, including but not limited to, self-supporting lattice towers, guy towers and monopoles.

17.110.724 Tower-guy-wired

Tower-guy-wired" means a tower supported by a tensioned cable designed to add stability to a free-standing structure.

17.110.764 Wireless

"Wireless" means transmissions through the airwaves including, but not limited to, infrared line of sight, cellular, broadband personal communication service, microwave, satellite, or radio signals.

~~**17.110.765 Wireless communication antenna array.**~~

~~"Wireless communication antenna array" means one or more rods, panels, discs or similar devices used for the transmission or reception of radio frequency (RF) signals through electromagnetic energy that can be attached to a building or sign. Wireless communication antenna array examples may include an omni-directional antenna (whip), a directional antenna (panel) and/or a parabolic antenna (dish).~~

17.110.770 Wireless communication facility.

"Wireless communication facility" means the antennas, nodes, control boxes, towers, poles, conduits, ducts, pedestals, electronics and other related equipment used for the purpose of transmitting, receiving, distributing, providing, or accommodating wireless communications services. ~~any unstaffed facility used for the transmission and/or reception of radio frequency (RF) signals through electromagnetic energy. This usually consists of an equipment shelter or cabinet, a support tower or structure used to achieve the necessary elevation, and the antenna array.~~

A. A "Small wireless facility"[9] means a facility that meets each of the following conditions:
   1. The facility:
      e. Is mounted on a structure 50 feet or less in height, with the height including any antennas; or
      f. Is mounted on a structure no more than 10 percent taller than other adjacent structures; or
      g. Does not extend an existing structure on which is to be located to a height of more than 50 feet or by more than 10 percent, whichever is greater.
   2. Each antenna associated with the facility, excluding associated antenna equipment is no more than three cubic feet in volume; and
   3. All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume; and
   4. The facility is not required to be registered with the FCC under 47 CFR Part 17; and
   5. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable FCC safety standards in 47 CFR 1.1307(b).

B. A "non-tower wireless facility" means a facility that is not a small wireless facility and does not involve, as part of the initial installation or construction, a wireless support structure. The term includes antennas, data collections units, and related equipment, but shall not include any wireless support structure. Except as allowed for small wireless facilities, the need to construct a wireless support structure will transform the non-tower facility into a tower-based facility.

C. A "tower-based wireless facility" means a facility installed or constructed with a Tower. Unless a DAS hub facility meets the definition of a small wireless facility, the DAS hub shall be considered a tower-based facility.

17.110.775 Wireless communication support structure.

"Wireless communication support structure" means a freestanding structure, such as a tower-based wireless communication facility, or any other support structure that could (or does)

[9] The substance of this language is required by federal law and cannot be changed. Required by FCC 18-133.

support the placement or installation of a facility. ~~structure specifically designed to support a wireless communication antenna array. This may include a monopole structure, lattice structure or building.~~

~~**17.110.780 Whip antenna.**~~

~~"Whip antenna" means an antenna that is cylindrical in shape up to twenty feet in height~~

CHAPTER 12.04 PROJECT PERMIT APPLICATION PROCEDURES.
(removals in ~~strikethrough~~, additions are underlined)

21.04.020 Applicability.

A. Unless otherwise provided, the regulations identified in this chapter shall apply to the following Kitsap County Code (KCC) provisions:
   1. Sections 11.36.060(1) through (4), roads; and Section 11.22.070(a), roads;
   2. Title 12, Stormwater Drainage, Chapters 12.04 through 12.20 and 12.28 through Section 12.32.090;
   3. Title 16, Land Division and Development;
   4. Title 17, Zoning, except Chapter 17.530 'Wireless Communication Facilities';
   5. Title 18, Environment;
   6. Title 19, Critical Areas Ordinance; and
   7. Title 22, Shoreline Master Program.

WPG WIRELESS POLICY GROUP LLC

February 15, 2019

Ms. Kim Allen, Chair
Kitsap County Planning Commission
619 Division Street
Port Orchard, WA 98366

VIA EMAIL – kitsap1@co.kitsap.wa.us

RE: Wireless Facilities Code Changes (KCC Chapter 17.530)
February 19, 2019, Hearing

Dear Chair Allen and Commissioners:

On behalf of AT&T, thank you for the opportunity to comment on the proposed code changes updating wireless regulations for Kitsap County (the "County").

AT&T supports the County's efforts to update its wireless code to be consistent with federal law and the latest in wireless technology. AT&T submitted detailed comments to County staff in late December, suggesting changes to conform with federal law and be consistent with industry practice, and we see that County staff made a handful of revisions in response to these comments.

AT&T continues to have significant concerns with numerous provisions of the code, which are shown in the redlined draft enclosed with this letter. Among other things, the proposed code remains inconsistent with federal law, makes substantial departures from existing County policy without explanation, and sets unnecessarily difficult and unreasonable standards.

AT&T suggests that the Planning Commission continue its hearing for additional revisions of the proposed code prior to making a recommendation to the Board of Commissioners.

Consistency with Federal Law

The County's proposed code changes are inconsistent with federal law in a number of instances.

Of great concern is the County's insertion of the "significant gap" test. As the code is now drafted, a wireless applicant must demonstrate a service gap in order to obtain a permit for a new tower, as well as to justify its location and height.

The Federal Communications Commission ("FCC") recently clarified the applicable test of when a local regulation has "the effect of prohibiting" wireless service under federal statutes,[1] concluding that a regulation does so when it materially inhibits or limits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.[2] The test is met *not only* when a carrier is filling a coverage gap, but also when it is densifying a wireless network, introducing new services, or otherwise improving service capabilities.[3] The FCC Order expressly rejects the "significant gap" test previously applicable in the 9th Circuit Court of Appeals.[4] It appears that County staff is maintaining that the FCC Order is limited to small wireless facilities,[5] but the FCC's analysis of when a regulation has "the effect of prohibiting" service does not draw distinctions among types of facilities.

The County's addition of a significant gap test is contrary to the direction other Washington jurisdictions are taking in updating their codes. Many Washington jurisdictions are removing the significant gap test from their wireless codes, and we are unaware of any Washington jurisdiction adding this dated test. Moreover, the City of Anacortes, the jurisdiction that was the municipal party to the federal case that created the significant gap test,[6] recently proposed a new code that allows an applicant to explain how the purpose of the new wireless site is to fill a significant gap, *densify a wireless network, introduce new services, or otherwise improve service capabilities*[7] consistent with the FCC Order. The Anacortes City Council will consider this new code on February 19th. AT&T suggests that Kitsap County follow the lead of Anacortes and other Washington jurisdictions, with an updated approach to regulation, consistent with federal law, which no longer requires proof of a significant gap in order to permit a new tower.[8]

AT&T continues to suggest that the County remove all of the draft code's requirements to demonstrate a significant gap in coverage or capacity.

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[1] 47 U.S.C. Section 253(a); 47 U.S.C. Section 332(c)(7).

[2] *Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC 18-133 (rel. Sept. 27, 2018); 83 Fed. Reg. 51867 (Oct. 15, 2018)("FCC Order"), para. 16.

[3] FCC Order, para. 37.

[4] FCC Order, footnote 94.

[5] Staff Report, Attachment C3, p. 5.

[6] *T-Mobile U.S.A., Inc. v. City of Anacortes*, 572 F.3d 987, 988 (9th Cir. 2009).

[7] Proposed AMC 19.68.100(B)(2). See City Council packet for February 19, 2019, Hearing: https://docs.cityofanacortes.org/WebLink/0/edoc/218776/218776.pdf

[8] Id. Applicants for small wireless facilities will not be required to address need at all. See proposed AMC 19.68.090.

Other inconsistencies with federal law include the following:

- **Section 6409/Eligible Facilities Requests.** Proposed Subsection 17.530.030(C)(1) provides that a nonsubstantial modification of an existing wireless facility under the applicable FCC rule (47 C.F.R. Section 1.6100) requires compliance with the code's general development standards in Section 17.530.040, except for three listed subsections. But under the FCC rule, *only* compliance with the substantial change criteria (and building and safety codes) is required. The remainder of the local zoning code does not apply. The staff report appears to argue that a concealment or aesthetic standard is an "objective" standard relating to "health and safety,"[9] but there is no support for such an assertion; instead, for these types of facility modifications, the FCC limits the County's review for concealment to determining whether the proposed modification defeats any existing concealment elements of the facility.[10] The newly proposed exception in -.030(C)(1)(excepting subsections A, B, and D of -.040) is not extensive enough to be compliant with the FCC rule. For instance, subsection -.040(E)(antenna and equipment standards) is also inapplicable to a nonsubstantial modification. AT&T suggests that -.030(C)(1) focus what *does* apply and simply require compliance with applicable building, structural, electrical, and safety codes consistent with FCC's rule and its order adopting the rule.[11]
- **Shot Clocks.** The staff report asserts that administrative appeal periods are not included in the federal shot clocks,[12] but the applicable FCC shot clock periods include all administrative appeal processes.[13] There is no final action by the County until the last administrative appeal is completed.[14] AT&T suggests the County reevaluate its proposed processes given these requirements of federal law.
- **Interference.** The FCC has the exclusive authority to regulate radio frequency interference ("RFI"), and local regulations that require a wireless applicant to demonstrate that its facilities will not cause RFI are impliedly preempted by federal law, as are conditions of project approval requiring remediation of any resulting RFI.[15] AT&T suggests deleting proposed Subsection 17.530.040(I).

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[9] Staff Report, Attachment C3, p. 4.
[10] 47 C.F.R. Section 1.6110(b)(7)(v).
[11] *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report & Order, 29 FCC Rcd 12865, para. 202 (2014).
[12] Staff Report, Attachment C-3, p. 9.
[13] *Global Tower Assets, LLC v. Town of Rome*, 810 F.3d 77, 85-86 (1st Cir. 2016).
[14] Id.
[15] *New York SMSA Limited Partnership v. Town of Clarkstown*, 612 F.3d 97, 105 (2nd Cir. 2010).

Substantial Departures from Existing County Policy

Several proposed provisions in the new code represent a substantial departure from existing County policy, without providing an explanation supporting a new, and more stringent, policy, including in the following examples:

- **Significant gap**. The County's current code does not require that an applicant show a gap in coverage. See also the detailed comments above.
- **Lease agreement required with application**. The County's current code does not require that the applicant submit a lease agreement; instead, the property owner's authorization of the application is sufficient. There is no reasonable basis for requiring submittal of a lease agreement at application.
- **Permit duration**. The County's current practice, and how it treats other land use approvals,[16] is to approve new facilities conditioned on submittal of an application for building or construction permit within four years. Requiring that construction be *completed* within *one* year[17] is unreasonable. Wireless approvals should be issued with the same duration as other land use approvals.
- **Exemption for maintenance, repairs, and reconstruction**. AT&T suggests that the County retain its current exemption for maintenance, repairs, and reconstruction, rather than strictly limiting this type of exemption. See suggested change to KCMC 17.530.010(B).

AT&T suggests that the County not change its established policies, as described immediately above and noted in detail in the enclosed redlined draft.

Unnecessarily Difficult and Unreasonable Standards

The proposed new code sets unnecessarily difficult and unreasonable standards in a number of instances by requiring replacements to be "identical" and that visual impact be "eliminated." AT&T suggests that the code accommodate facilities with substantially similar impacts and acknowledge that it is sufficient that visual impacts be minimized. See detailed comments in the enclosed.

Further, Subsection (E) of the General Development Standards (-.040), Related Equipment, extends what are clearly small wireless facility design standards to all wireless facilities. For instance, these so-called "General" standards require internal antennas, or antennas to be shrouded and not more than 14 inches in diameter and

[16] KCMC 21.04.270(A)(1).
[17] See Proposed Section 17.530.030(K).

five feet in height.[18] Protrusions are limited to two feet from the support structure.[19] These standards are far too restrictive for small wireless standards and impossible for macro facilities. Macro facilities typically include antennas of between six and eight feet in height and antenna arrays may be mounted in various configurations.

Moreover, even assuming these antenna and equipment standards apply only to small wireless facilities, several are not technically feasible for AT&T's installation of small wireless facilities. Under the FCC Order, aesthetic regulations for small wireless facilities apply to the extent they are reasonable, technically feasible, objective, no more burdensome than those applied to other types of infrastructure deployments, and published in advance.[20] Each small wireless facility standard must be technically feasible for all carriers.

Consistent with the FCC Order, AT&T suggests the County's proposed small wireless standards be revised as follows:

- Allow antenna mounts other than pole-top mounts or shrouded and protruding no more than two feet from the support structure. See Proposed Sections 17.530.040(E)(2) and –(3). As drafted, the code prohibits a side-mounted canister antenna, one of AT&T's typical antenna configurations.
- Allow up to a 12-inch offset between the antenna(s) and the pole, to be measured from the surface of the pole to the inside edge of the antenna. The proposed two-foot limitation on a protrusion (see Section 17.530.040(E)(3)(a)) prohibits one of AT&T's typical antenna configurations (a side-mounted canister antenna, which must be mounted at a distance sufficient to clear the obstruction of the pole itself). A 12-inch offset allows sufficient distance for AT&T's side-mounted canister antenna, as well as antenna tilt for panel antennas.
- Allow up to 16 inches in diameter for a cylindrical antenna. See Proposed Section 17.530.040(E)(2).
- Qualify other applicable standards to apply "to the extent technically feasible."
- Adopt appropriate standards for the use of existing wooden utility poles.

Last, the code's proposed requirement that tower height be 75 percent screened is unreasonably burdensome.[21] Screening and stealth design are typically required in the alternative, and any tower built with stealth technology should be exempt from screening requirements. Further, screening requirements should apply only in the context of protected views. If a tower is proposed in an area already developed with industrial uses, for example, the applicant's burden should be limited to showing

[18] Proposed Section 17.530.040(E)(2)(c)-(d).
[19] Proposed Section 17.530.040(E)(3)(a).
[20] FCC Order, paras. 86-87.
[21] Proposed Section 17.530.060(a)(7)(c).

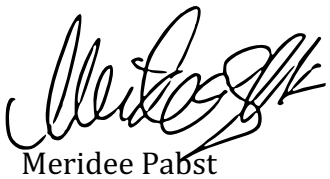
compatibility with the surrounding area. Also, screening requirements should be limited to important vantage points. As drafted, the code appears to require 75 percent screening from every viewpoint. Finally, "substantial" screening should be sufficient for compatibility rather than an arbitrary percentage.

Please see the enclosed redline for additional comments and suggested changes.

We appreciate your consideration of our comments and for all of the efforts by Kitsap County's leaders and staff to establish workable policies for the entire industry, including AT&T, and the people living and working in the County.

Please let us know if you have any questions. Carol Tagayun will attend your hearing on AT&T's behalf.

Sincerely,



Meridee Pabst
meridee.pabst@wirelesspolicy.com
425-628-2660

Enclosure: Redlined Proposed Code Change

cc: Darren Gurnee, Planner
Dave Ward, Planning & Environmental Programs Manager

KITSAP COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT – ATT suggestions highlighted in green

ATTACHMENT C1 – DRAFT CODE FOR PLANNING COMMISSION REVIEW

Changes from the preliminary draft reviewed on January 8, 2019 are shown in red.

UPDATE TO KITSAP COUNTY CODE
CHAPTER 17.530 'WIRELESS COMMUNICATION FACILITIES'
-- TABLE OF CONTENTS --

CHAPTER 17.530 WIRELESS COMMUNICATION FACILITIES.
(full repeal and replace of 17.530)

Sections:

17.530.010 Purpose and Applicability

A. Purpose. This chapter includes regulations and development standards for wireless communication facilities (facilities) and related equipment. This chapter applies to facilities located inside and outside a county right-of-way (ROW). These regulations and development standards intend to:

1. Allow for a variety of facility types in many locations.
2. Reduce~~, preferably eliminate,~~ the visual impact of facilities to surrounding properties.
3. Encourage creative approaches to locating facilities in ways that are compatible with the surroundings.
4. Encourage and facilitate collocation of antennas, support structures and related equipment on existing tower-based facilities or other structures that already support at least one non-tower facility.
5. Provide a process with substantial public participation to locate and identify new site locations in a comprehensive manner.
6. Require the use of stealth technology.

B. Exemptions. Each of the following are exempt from the regulations of this chapter and shall not require a permit under this chapter:

Emergency or routine repairs, reconstruction, or routine maintenance of previously approved facilities, or replacement of transmitters, antennas, or other components of previously approved facilities which do not create a significant change in visual impact.

~~Maintenance or replacement of the existing related equipment with new related equipment that has identical dimensions and appearance, or smaller dimensions and a less intrusive appearance.~~ While a letter of exemption is not required, the maintenance or replacement shall otherwise comply with all applicable regulations.

2. Military and civilian radar, operating within the regulated frequency ranges, for the purpose of defense or aircraft safety.
3. Amateur and citizen band transmitters and antennas, satellite dishes or similar communication facilities used for noncommercial purposes.
4. Two-way communication transmitters used on a temporary basis by "911" emergency services, including fire, police, and emergency aid or ambulance service.
5. Antennas located wholly within another structure, and not visible from the outside.

Commented [MP1]: Suggest keeping the County's current exemption for repairs, reconstruction, etc.

6. Emergency communications equipment during a declared public emergency.
7. A temporary, commercial wireless facility installed for providing coverage of a special event such as a fair, news coverage or sporting event. The wireless facility shall be

exempt from the provisions of this chapter for up to two weeks before and after the duration of the special event.

8. A temporary, commercial wireless facility installed for a period of 180 days, subject to renewals at the County's discretion, to provide service during repair, replacement, or relocation of an existing facility or construction of a new facility.

~~9. Wireless communication facilities constructed to serve first responders, such as fire, police and emergency medical response services.~~

C. Prohibited locations and structures.

1. A facility shall not locate:

a. On single-family residences or on any residential accessory structure.

b. On real property or structures listed, or eligible for listing, on the:

i. National or Washington Registers of Historic Places.

ii. Official historic structures or historic districts lists maintained by the county.

c. W~~here the visual impacts analysis required by Section 17.530.040(B) concludes that a more than moderate visual impact will occur and cannot be mitigated~~

2. Tower based wireless communication facilities are prohibited:

a. When it meets the definition of a guyed-tower.

b. ~~In areas where utility lines are predominantly located underground.~~

c. Within 200 feet of the shoreline, as defined in KCC Title 22 'Shoreline Management Program'.

d. Within a critical area ~~or its buffer~~, as defined in Title 19 'Critical Areas Ordinance'.

e. Within 300 feet of the boundary line of a municipal park unless the tower-based facility is disguised through stealth technology ~~as a tree or natural feature~~ that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.

3. Related equipment is prohibited in a right-of-way within 150 feet of a park boundary line, unless the applicant acquires written consent of the County Engineer and the appropriate park director.

D. Other regulations.

1. This chapter regulates only the land use permit from the department. A wireless communication facility may require other permits or review under other local codes or under state or federal law. This includes:

a. Chapter 14.04 'Technical Building Codes' regarding building permits.

b. Chapter 18.04 'State Environmental Policy Act' regarding environmental review.

c. Title 11 'Roads, Highways, and Bridges' regarding right-of-way permits.

2. Chapter 21.04 'Project Permit Application Procedures' shall not apply unless specifically stated in this chapter.

17.530.020 Nonconforming Uses and Structures

A. The non-conforming provisions of Chapter 17.570 'Nonconforming uses, structures and use of structures' apply except as provided in this section.

B. Non-conforming wireless communication facilities damaged or destroyed after [INSERT ADOPTION DATE] due to any reason or cause may be repaired and restored at the same

Commented [MP2]: Suggest allowing with historic review.

Commented [MP3]: This is redundant. Visual impact is thoroughly addressed later in the code.

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Commented [MP4]: Undergrounding of utilities in the ROW should not bar WCF towers elsewhere in the entire undergrounded area. How will that area be served?

Commented [MP5]: Suggest allowing WCF development within buffers to the extent allowed for other development, with mitigation, etc.

Commented [MP6]: Stealth technology other than a tree or natural feature may be as or more compatible, depending on the surroundings. One of the objectives of stealthing is to match the context of the site.

location. The wireless communication facility (facility) shall otherwise comply with the terms and conditions of this chapter. A complete application, as provided in Section

17.530.030 'Permitting,' to reconstruct the facility shall be filed with the department within one year from the date the structure was destroyed.

Non-tower and small wireless facilities shall be allowed to collocate upon any existing non-conforming base station or tower-based facilities.[1]

17.530.030 Permitting

A. Permits required. An applicant shall obtain a land use permit from the department prior to the installation or construction of any wireless communication facility (facility). This chapter requires a(n):

1. Letter of exemption to:
   a. Collocate a non-tower facility that does not substantially change an existing, approved facility.
   b. Collocate a small wireless facility on any existing structure.
   c. Replace a wireless support structure with a substantially similar ~~identical~~ support structure.
2. Administrative conditional use permit (ACUP) to:
   a. Collocate a non-tower facility that substantially changes an existing, approved facility.
   b. Collocate a non-tower facility on an existing structure that has not previously been approved as a facility.
   c. Construct a small wireless facility on a new structure.
   d. Locate a tower-based facility within 500 feet of an existing tower-based facility.
   e. Construct a tower-based facility disguised through stealth technology ~~as a tree as natural feature~~ that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.
3. Conditional use permit (CUP) to construct a tower-based facility that does not qualify for an administrative conditional use permit (ACUP) in section 17.530.030 2.

Commented [MP7]: How will the ACUP process meet shot clocks?

Commented [MP8]: Stealth technology other than a tree or natural feature may be more compatible, depending on the surroundings.

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[1] (The substance of this language is required by federal law and cannot be changed. See 47 CFR 1.~~6400~~0100 (which, effective 1/14/19 will become 47 CFR 1.6100) and FCC 14-153 at 86-87.)

Table 1 Wireless Communication Facility (facility) Permit Review Summary				
Type of Facility	Number of Days for Decision 17.530.030 (H)	Land Use Permit		
		Letter of Exemption	ACUP	CUP
Replacement of wireless support structure with a~~n~~ identical substantially similar support structure.	60	X		
Collocation:				
New or replacement non-tower facility that does not substantially change existing facility.	60	X		
New or replacement non-tower facility that substantially changes an existing facility	90		X	
A new non-tower facility on a structure not previously approved for facility use.	90		X	
Small wireless facility on any existing structure.	60	X		
New facility and support structure:				
Small wireless facility on a new structure.	90		X	
A tower-based facility within 500 feet of an existing tower-based facility.	150		X	
a tower-based facility disguised through stealth technology ~~as a tree or natural feature~~ that is compatible with its surroundings and meets the requirements of 17.530.040 B 'Visual Appearance'.	150		X	
Tower-based facility that does not qualify for the Administrative Conditional Use Permit (ACUP) process.	150			X

B. Pre-application Meeting. A pre-application meeting (see Section 21.04.120) is encouraged, not required. ~~An applicant disputing the need for any item of an application shall request a pre-application meeting.~~ The meeting may occur by telephone or in person as deemed necessary by the department. The department shall indicate in writing when it agrees that a particular document or specific information is not required for an adequate review of the application.

C. Applications for a letter of exemption.

1. Where a new or replaced non-tower facility is proposed that does not substantially change an existing facility, the application for a letter of exemption shall contain all information necessary to determine compliance with 47 USC 1455(a) and 47 CFR 1.~~6400~~100[2], as now or hereafter amended. ~~While n~~No further information in the application

Commented [MP9]: How will an ACUP be completed within the applicable shot clock, especially when administrative appeals must be included in the shot clock? *Global Tower Assets, LLC v. Town of Rome*, 810 F.3d 77, 85-86 (1st Cir. 2016).

Commented [MP10]: This CFR has been recodified with the new FCC Order.

[2] As of 1/14/19, this reference will change to 47 CFR 1.6100

is required except information showing compliance will all applicable building, structural, electrical, and safety codes, all facilities shall comply with Section 17.530.040 "General Development Standards" except for subsections A, B, and D.

2. Where a small wireless facility on an existing structure is proposed, the application for a letter of exemption shall contain all necessary information to verify that the facility meets the definition of a small wireless facility and to determine compliance with this chapter.

3. Where the replacement of a support structure with a~~n identical~~ substantially similar support structure is proposed, the application for a letter of exemption shall contain engineer-stamped structural drawings that include:

a. The existing support structure and the proposed support structure.

b. Descriptions of each structure not shown on the drawings.

c. A description of all existing and proposed facilities to be placed on the proposed support structure.

D. Applications for an administrative conditional use permit (ACUP). An ACUP application shall contain all information necessary to determine compliance with this chapter. Unless noted otherwise the application requires at least:

1. A site plan drawn to scale.

2. A landscape plan drawn to scale.

3. Except for small wireless facilities, a report describing the proposed facility with technical reasons for its design. The report shall ~~justify~~ describe the height, dimensions, and location of the proposed facility.

4. Documentation that the proposed facility complies with all applicable state and federal laws and regulations, including radio frequency emissions and aviation safety.

5. Documentation that the proposed facility complies with this chapter.

6. If applicable, a~~A~~ visual impact analysis as described in Section 17.530.040 B.1.

~~A seal and signature of a professional structural engineer, licensed in the State of Washington, on all construction documents for structures~~.

8. When the facility is located on property not owned by the applicant, a letter of authorization from the property owner~~copy of the document that grants the applicant authority to use all areas proposed and needed to comply with this chapter, including but not limited to screening, setbacks, and access~~.

9. If the applicant is not a carrier, proof that an agreement exists between the applicant and a carrier committing the carrier to use the proposed facility in carrier's service network. This submittal item cannot be waived. An application will not be approved without such commitment.

10. A State Environmental Policy Act (SEPA) checklist when required by WAC 197-11-800, as now or hereafter amended, and Chapter 18.04 of Kitsap County Code.

E. Applications for a conditional use permit (CUP). A CUP application shall contain all information necessary to determine compliance with this chapter. The application requires

Commented [MP11]: Under the FCC rule under Sec. 6409, ONLY compliance with the substantial change criteria (and building and safety codes) is required. The remainder of the local zoning code does not apply. This proposed exception (excepting subsections A, B, and D or -.040) is not extensive enough to be compliant with the FCC rule. For instance, subsection E (antenna and equipment standards) will also not apply to an Eligible Facilities Request. Suggest describing what DOES apply to an EFR for simplicity.

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Commented [MP12]: What is this intended to capture?

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Commented [MP13]: Suggest that applicable structural engineering requirements be met with building permit applications, as is typical in other jurisdictions.

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Commented [MP14]: Suggest keeping the County's current requirement here. We don't believe the County requires a copy of a lease, etc., with an application for any other type of planning permit.

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~~39~~35 at least:
~~40~~36 1. All information required in Section 17.530.030 D 'Applications for an ACUP'.

2. Documented actual and reasonable efforts to collocate the facility. The documentation shall demonstrate that the applicant contacted the owners of and sought permission to install a facility on:
   a. All existing wireless support structures.
   b. Other tall structures or buildings within a ~~one~~half-mile radius of the proposed site.
3. Propagation studies. The application shall include at least one propagation study that shows wireless coverage or capacity.
   a. The propagation studies shall include, at a minimum, the following information:
      i. The current service and the service for at least two adjustment options at existing sites, if possible.
      ii. A description of the type and manufacturer of the proposed transmission/radio equipment.
      iii. The frequency range (megahertz band) assigned to the carrier.
      iv. The power, in watts, at which the carrier transmits.
      v. Any relevant related tests conducted by the applicant or carrier in determining the need for the proposed site and installation. All reasonable designated confidential proprietary information may be redacted.
   b. Only an adjustment will be allowed if a study demonstrates that the adjustment will eliminate a service gap.
   c. An adjustment may be required as a condition of approval if a study demonstrates that the adjustment will reduce the service gap.
4. Future collocation. The application shall include:
   a. Documentation that the applicant ~~requested advised~~ Kitsap 911 ~~of the potential opportunity~~ to ~~determine the feasibility of~~ collocat~~e~~ing emergency service communications facilities. The proposed tower-based facility location and technical specifications shall be included with the request.
   b. A written commitment that the applicant will allow other antennas to collocate on the tower-based facility where technically feasible ~~and when reasonable terms can be reached~~.
5. FCC-license. Each applicant that proposes a tower-based facility shall submit a copy of its FCC license for the proposed location. The license shall include the name, address, and emergency telephone number for the operator of the facility.

F. Fees. All applications for permits or requests for actions by the county shall be accompanied by a filing fee in an amount established by county resolution. ~~Fees for small wireless facilities shall be (1) a reasonable approximation of the County's costs related to and caused by the small wireless deployment, (2) reflective only of objectively reasonable costs, and (3) no higher than the fees charged to similarly situated competitors in similar situations.~~

G. Notice.
1. Letters of exemption shall not require public notice.
2. ACUPs and CUPs. Within 14 calendar days from the submission of a complete application, the department shall:
   a. Mail notice to every property owner within 800 feet of the proposed facility.
   b. Post notice on the property.

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Commented [MP15]: Capacity deficits are not typically shown in a propagation map. And, see comments below that applicant need not demonstrate a gap. Suggest deleting all requirements to justify new construction, height, and/or location by demonstrating a gap in service.

Commented [MP16]: What is an "adjustment option"?

Commented [MP17]: These "gap" requirements are not found in the existing Kitsap code, and the FCC Order effective January 14, 2019, provides that an applicant need not show a gap in service coverage. Suggest deleting all requirements to justify new construction, height, and/or location by demonstrating a gap in service. *See Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC 18-133 (rel. Sept. 27, 2018); 83 Fed. Reg. 51867 (Oct. 15, 2018).

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Commented [MP18]: From FCC Order.

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The applicant is responsible for all costs associated with such notice. All notices shall contain the applicable information required by Section 21.04.210 'Notice of Application' or be a summary postcard with a link to such information.

H. Time for review.

1. Completeness.

a. The county shall notify the applicant in writing of any information that is required to complete an application within ten calendar days of filing the application. ~~The permit application automatically expires if the applicant fails to submit the requested information within 30 days of the department's written request.~~

b. ~~Prior to the expiration date, the applicant may request an extension to provide the required information. The department may grant up to one 30-day extension if it is determined that the required studies or information warrants additional time. Financial hardship shall not be considered for extensions of deadlines.~~

c. Once the applicant has submitted the required information, the county shall notify the applicant within 10 days of the submittal if the application remains incomplete.

d. The time tolled between the date of the County's written notifications to the date all requested information is received shall not count towards the number of days an application is in review for a decision.

2. Letters of Exemption. Once an ~~complete~~ initial application has been filed, regardless of the deadlines for notice, the county has 60 calendar days, after accounting for the tolling provided above and restart time in review if applicable per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.

3. ACUPs. Once an initial ~~complete~~ application has been filed, the county has 90 calendar days, after accounting for the tolling provided above and restart time in review per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.

4. CUPs. Once an initial ~~complete~~ application has been filed, the county has 150 calendar days, after accounting for the tolling and restart time in review per section 17.530.030 H.5., to make its final decision on the application and to advise the applicant in writing of such decision.

5. Restart time in review.[3]

a. Small wireless facilities. Submittal of information requested through sections 17.530.030 H.1.a. and 17.530.030 H.1.c. shall restart the time in review of an application once. Requests for information by the county after the first restart shall not restart the time in review of an application again.

b. All other facilities. Submittal of information requested through 17.530.030 H.1.a. and 17.530.030 H.1.c. shall not restart time in review of an application.

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Commented [MP19]: All FCC shot clocks commence at the initial submittal, with completeness determined within the review period.

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[3] For small cells, however, the 60 days starts over if the county notifies the applicant within 10 days. Non-tower facilities do not restart. If the county notices the applicant on day 10, then receipt of the information requires decision in 50 days. Compare FCC 18-133 at 80 with FCC 14-153 at 11 and 129.

The 90 and 150 days also do not restart (see FCC 09-99 at 12 and FCC 14-153 at 11).
The proposed new 47 CFR 1.6003 (see FCC 18-133 at 80) includes the review times and tolling rules.

6. Batching. Applicants for small wireless facilities may batch requests into a single application.[4] Denial of one or more small wireless facilities in a consolidated application shall not delay the processing of any other small wireless facility or related poles submitted in the same consolidated application.

I. Experts. For facilities subject to a CUP, tThe department may hire any consultant(s) and/or expert(s) necessary to assist the department in reviewing and evaluating an application for a proposed facility. The applicant and/or owner of the facility shall reimburse the county for all reasonable and actual costs of the county's consultant(s) in providing expert evaluation and consultation in connection with these activities.

J. Approval. The department may approve, conditionally approve, or deny a permit for a facility. Approval or conditional approval may only be granted when the requirements of this chapter have been met. Approval may be revoked as provided in Kitsap County Code.

K. Permit Duration and extensions. Permits issued under this chapter expire within ~~12 month~~4 years from the date issued if ~~construction is not complete at that time~~an application for building permit, right-of-way permit, or other applicable construction permit has not be filed. ~~Incomplete construction~~ by the permit expiration date requires submittal of a new permit application. The department may grant one one-year extension when all of the following conditions are met:

1. The extension request is submitted in writing at least 30 calendar days prior to the expiration of the permit.
2. ~~Significant concerns with the extension can be mitigated by minor revisions to the permit.~~
3. Tangible process has been made toward ~~application for building permit, right-of-way permit, or other applicable construction permit~~completion.
4. An extension would not adversely impact public health, safety or general welfare.

L. Director Interpretations. A director's interpretation per Section 21.04.040 'Directors Interpretations' may resolve disputes regarding the interpretation of this chapter.

M. Appeals. A decision on a letter of exemption or an ACUP may be appealed to the Hearing Examiner in accordance with Section 21.04.290 'Appeals'.

N. Revoked Permit. The County may revoke a permit 17.600.010 'Revocation for noncompliance with conditions'.

A facility with a revoked permit shall be considered abandoned and subject to section 17.530.080 B.[5]

17.530.040 General Development Standards

A. Height. Wireless Communication Facilities (facilities) shall not exceed heights authorized in this chapter. Height is measured as the total vertical distance from the ground level, including any base pad, to the highest point of the facility, including any antennas, appurtenances, or related equipment, but not including a lightning rod.

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Commented [MP20]: Current Kitsap standard is 4 years tied to application for construction permit. Suggest keeping same.

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[4] The County can't deny batching for small wireless facility applications. For details see FCC 18-133 at 80. A maximum number of applications can be established by Kitsap County. However, this may result in multiple batches applied for at the same time with the same time in review requirements as the single batched item.

[5] Section 17.600.010 'Revocation for noncompliance with conditions' requires a public hearing to revoke a "master plan, performance based development permit, administrative conditional use permit, hearing examiner conditional use permit, or variance granted in accordance with the terms of this title, may be revoked if any of the conditions or terms of such permit or variance are violated, or if any law or ordinance is violated in connection therewith."

Commented [MP21]: If the County adopts a limit on the number of applications per batch, it must accept multiple batches at the same time, according to the FCC Order.

B. Visual Appearance. In residential zones, all tower based wireless communication All facilities shall employ the most current stealth technology to be the least visually and physically intrusive or be substantially screened from view. All facilities shall also be aesthetically and architecturally compatible with the surrounding environment and shall be designed to blend with the existing surroundings.

1. Visual impact analysis.

a. When a new tower based wireless communication facility is proposed, cCompatibility and visual impact shall be determined through a visual impact analysis. The analysis must use maps, photographs, photo-simulation, and other appropriate methods to show the existing topographical contours of the area and areas within a one-mile radius where any portion of the proposed facility can be seen. Line of sight includes from the ground to the rooftop of adjacent buildings. Views from at least four locations shall be shown in the visual impact analysis.

~~b. When more than a moderate visual impact is likely, the visual impact analysis shall include a visual demonstration, such as the erection of a crane, a balloon in a color similar to that of the proposed structure and of a size not less than four feet and not to exceed six feet, or similar device used to simulate the proposed dimensions and height of the structure. Ten working days prior to the demonstration, the applicant shall notify:~~

~~i. The department.~~

~~ii. All properties within 800 feet of the parcel where the demonstration will occur.~~

~~The department shall provide the list of properties within 800 feet.~~

2. More than moderate visual impact. A new tower based wireless communication facility shall not be considered aesthetically compatible with the surrounding land uses if, within a one-mile radius, it results in more than a moderate visual impact. A "more than moderate" visual impact occurs when one or more of the following exist:

~~a. The facility becomes a predominant feature in the viewscape.~~

b. The facility substantially disrupts a largely intact and unobstructed view of visually sensitive areas, which are those locations that provide views of one or more of the following: Puget Sound, lakes, large wetland complexes, major streams, valleys and ravines, large ~~tracts of forested land.~~ Mount Rainier, the Cascade mountain range or the Olympic mountain range. These views are particularly sensitive from certain places of the county, including residential areas, commercial areas, major transportation corridors and arterials in rural areas.

c. The facility is not designed and painted or colored to blend in with the surrounding environment.

~~d. The facility is sited above visually predominant ridge lines.~~

~~e. The facility extends twenty feet or more above the tree line.~~

~~f. A non-tower facility is proposed in a visually sensitive area and cannot be completely enclosed within the existing structure or camouflaged as another structure.~~

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Commented [MP22]: Suggest protecting visually sensitive areas as the current code does.

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Commented [MP23]: This is inconsistent with the revised height standards.

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~~compatible with the surrounding environment.~~

3. Other visual requirements. A facility must:

a. Place all required stickers or other identifying labels on the underside of related equipment, or away from public view on ground-mounted equipment, and not near ground level if on a tower-based facility, unless otherwise required by applicable law.

b. Place and size antennas and related equipment to blend into the architectural detail of the supporting structure. Paint or another coating may be required to be visually compatible with the support structure.

c. Screen electrical meter cabinets to blend with the surrounding area. Use of smart meters are preferred.

d. For proposed fences, the fence must:

i. Be at least six feet in height and no more than eight feet in height.

ii. Be of a nonobtrusive material, such as a dark vinyl coated chain link that blends with the surrounding area.

C. Lighting.

1. This chapter prohibits all artificially lighted facilities except:

a. Permanent 911 public safety facilities. This includes fire, police and emergency medical response services.

b. Facilities located at a 700-foot elevation and more than one-half mile from a residential area.

c. Those required to be lit according to FAA regulations.

2. The applicant shall provide a detailed plan for lighting if an artificially lighted facility is allowed. The plan shall demonstrate that the proposed lighting does not have a negative impact on adjacent properties and complies with state and federal regulations for lighting. The applicant shall promptly report any outage or malfunction of FAA-mandated lighting to the appropriate governmental authorities and to the county.

~~3. Any facility needing lighting per FAA regulations shall be altered to avoid the need for lighting unless Section 17.530.040.C.1. applies.~~

4. The department may allow security lighting for ground mounted related equipment. Security lighting shall be directed away from adjoining properties through shielding and arrangement. No more than one foot-candle of illumination may leave the property boundaries.

D. Noise. Facility operation and maintenance shall comply with Chapter 10.28 'Noise'.

E. Related equipment.

~~1. Antennas and antenna elements shall be enclosed within the facility.~~

~~2. Antennas and antenna elements unable to be enclosed within the facility require the applicant to demonstrate the inability to do so. In such cases, the antenna and antenna elements shall be within a shroud mounted at the top of facility. The shroud:~~

~~a. Shall cover all antenna and antenna elements in a single antenna shroud.~~

~~b. Shall match the support structure color, finish, and visually conceal all contents and/or wiring to the greatest extent possible. A solid shroud is preferred.~~

~~c. Shall be cylindrical for pole facilities and match the pole shaft diameter, when feasible. The shroud diameter shall not exceed 14 inches. Once transitioned from the support structure shaft, the shroud diameter shall remain consistent.~~

~~d. Shall not exceed a height of five feet. For light standards, this dimension is measured from the top of the luminaire mast arm attachment point.~~

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Commented [MP24]: What type of facilities are these intended to apply to? They read like design standards for small wireless facilities in a downtown design district and not WCF standards typically found in a rural county. Even assuming they are small wireless facility standards, they are not technically feasible, as explained in AT&T's comment letter.

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3. Antennas and antenna elements unable to be enclosed within the facility or shrouded at the top of the facility require the applicant to demonstrate the inability to do so. In such cases, a shrouded, externally mounted antenna package may be allowed if:
   a. The shroud protrudes no more than two feet from the outer circumference of the support structure.
   b. The shroud height does not exceed five feet, mounted longitudinally to the structure shaft.
   c. The shroud and all parts of the antennae package are at least seven feet from the ground.
4. A base shroud shall fully enclose all remaining equipment located on the structure. This may include radios not mounted at top of structure, electric meters, grounding equipment, and cut-off switches. The base shroud shall:
   a. Be structurally sound to fully support the proposed structure and maximize equipment volume.
   b. Not exceed a height of six feet from mounting surface.
   c. Match the support structure color, finish, and visually conceal and lock all contents and/or wiring to the greatest extent possible. A solid shroud is preferred.
   d. Where the facility is a pole, install a shroud that is cylindrical with a maximum consistent diameter of 16 inches not including small architectural banding features. This diameter may increase up to 20 inches if the location combines multiple carriers or uses.
5. Enclosures separate from the support structure may be allowed if:
   a. The applicant demonstrates the inability to enclose or shroud antenna and antenna equipment as prescribed in Section 17.530.040(E)(4).
   b. The enclosure is no greater than three feet six inches (3'-6") in any dimension.

F. Standard of Care. Facilities shall be designed, constructed, operated, maintained, repaired, modified and removed in strict compliance with all current applicable technical, safety and safety-related codes, and all federal, state and county laws and regulations. These include without limitation the most recent editions of the following:
1. American National Standards Institute (ANSI) Code.
2. National Electrical Safety Code.
3. National Electrical Code.
4. All aviation safety standards.
5. All accepted and responsible workmanlike industry practices of the National Association of Tower Erectors or the Telecommunication Industry Association.

G. Wind and ice. Facility structures shall be designed to withstand the effects of wind gusts and ice. The design shall comply with the American National Standards Institute standard design prepared by the engineering departments of the Electronics Industry Association, and Telecommunications Industry Association (ANSI/EIA/TIA-222, as amended).

Engineer signature. Construction documents for structures shall contain a seal and signature of a professional structural engineer, licensed in the State of Washington.

I. Interference.

Commented [MP25]: Structural work is typically submitted in Building Permit review. Suggest the County follow the standard practice in most jurisdictions.

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Commented [MP26]: The FCC preempts the regulation of radio frequency interference. *New York SMSA Limited Partnership v. Town of Clarkstown*, 612 F.3d 97, 105 (2nd Cir. 2010).

~~The county's radio frequency, wireless network, or Kitsap 911 (collectively "county operations").~~

~~Other facilities or any FCC licensed devices.~~

~~Any similar third-party equipment.~~

J. Radio frequency emissions. The proposed facility, in conjunction with other facilities, shall not generate radio frequency emissions that exceed the standards and regulations of the FCC. These regulations include at least the FCC Office of Engineering Technology Bulletin 65 entitled "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields," as amended.

K. Agreement for facilities on County property. The applicant and the County shall execute an agreement to provide terms and conditions to locate a facility on County property, provided that, for locations in the public right-of-way, a right-of-way permit is sufficient authorization. The agreement must:

1. Be completed prior to construction of the facility.
2. Comply with the regulations in this chapter.
3. ~~Be submitted with the application for the facility.~~
4. Address the following issues:

a. Facilities are subject to the county's right to fix an annual fee for use and occupancy of the property subject to applicable FCC limitations, such as those for small wireless facilities.

b. A financial security must be submitted to protect the county from the costs and expenses due to a failure to comply with the obligations in this chapter. The amount and form of the financial security shall be decided by mutual agreement. The amount of financial security shall be at least 150% of the cost of the facility unless otherwise agreed.

c. Modifications requested by the county.

i. The county may determine that a change to a facility in the ROW is reasonably necessary under the following circumstances:

(a) To facilitate or accommodate the construction, reconfiguration, completion, repair, relocation, or maintenance of a public project within the ROW.

(b) To accommodate the vacation of ROW or the release of a utility easement.

(c) As required by applicable laws or to protect or preserve the public health, safety, or welfare.

ii. Within 60 days of written notice from the county, the owner or operator of a facility in the ROW shall temporarily or permanently change, alter, relocate or remove part or all of the facility. The department may approve up to two 90-day extensions when all of the following conditions are met:

(a) The extension request is submitted in writing at least 30 calendar days prior to the expiration of the 90 days.

(b) Any significant concerns with the extension can be mitigated.

(c) An extension would not adversely impact public health, safety or general welfare.

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(d) Financial hardship shall not be considered for extensions of deadlines.[6]

~~ii.~~iii. Where an emergency exists, following notice from the county, and under terms as mutually agreed the owner or operator of the facility shall immediately effect a temporary or permanent change, alteration, relocation or removal of part or all of the facility. An emergency includes, but is not limited to, any interference with~~:~~

~~iii.iv. the proper operation of a county owned light pole, traffic control device other county facility~~

~~iv.~~v. ROW operations or pedestrian facilities.

~~9~~7 17.530.050 Regulations for non-tower and small wireless communication facilities

~~10~~8 A. Development regulations. Except as provided in Section 17.530.050(B) 'Development ~~11~~9 regulations in the public right-of-way (ROW)' and in addition to Section 17.530.040 'General ~~12~~10 Development Standards,' the following applies to all non-tower wireless communication ~~13~~11 facilities and small wireless facilities (facilities) for which an ACUP is required.

~~14~~12 1. Collocation. All facilities except small wireless facilities shall collocate on existing wireless support structures unless ~~15~~13 technologically infeasible, in which case the facility may locate on an existing pole or ~~16~~14 structure.

~~17~~15 2. Height. The total height of any facility after installation shall not exceed the maximum ~~18~~16 height permitted in the underlying zoning district, except where the following are met:

~~19~~17 a. The height will not exceed 20 feet above the roof surface.

~~20~~18 b. No significant visual impacts to surrounding properties occurs. Visual impact is measured from the ground or roof of an adjacent building.

c. Small wireless facilities and their supporting structures meet the height limitations in the definition of small wireless facility.

~~21~~20

~~22~~21 B. Development regulations in the public right-of-way (ROW). The following regulations apply ~~23~~22 to all non-tower and small wireless facilities located in the ROW and for which an ACUP is ~~24~~23 required. If any conflict exists between these regulations and those elsewhere in this ~~25~~24 chapter, the regulations herein shall control.

~~26~~25 1. Location.

~~27~~26 a. All facilities and related equipment in the ROW shall not cause any physical or visual ~~28~~27 obstruction to pedestrian or vehicular traffic, create safety hazards to pedestrians ~~29~~28 and/or motorists, or inconvenience public use of the ROW.

~~30~~29 b. All equipment more than four inches above the ground shall be placed outside of ~~31~~30 the clear zone or mitigated in accordance with the current edition of the County ~~32~~31 Road Standards. Ground-mounted related equipment, walls, or landscaping shall be ~~33~~32 located at least 18 inches from the face of the curb, sidewalk, or paved pathway.

~~34~~33 2. Height. Related equipment located above ground in the public ROW shall be:

~~35~~34 a. Compatible in scale and proportion to the structures upon which they are mounted and other infrastructure in the ROW.

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Commented [MP28]: Small wireless facilities are not typically collocated with other wireless facilities due to infeasibility (RF interference issues).

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Commented [MP29]: As with SEPA, the criterion should ask whether impacts are significant.

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~~3635~~ b. The smallest and least visibly intrusive~~, to the extent technically feasible as determined by the visual impact analysis~~.

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[6] The 90 day timeframe and two 90 day extensions are consistent with Section 17.530.080 B 'removal'. Other examples in Kitsap County Code regarding extensions include:

- Section 14.04.268 'Permit Expiration' which provides a 180 day extension to complete work for an issued building permit.
- Section 21.04.200 B.2. which provides two 90 day extensions to submit information requested by the county for a permit.

c. A height not to exceed four feet from finished grade to the extent technically feasible.

3. Construction time, place and manner. The county shall determine the time, place and manner of construction, maintenance, repair and/or removal of all non-tower facilities in the public ROW based on public safety, traffic management, physical burden on the public ROW, and related considerations. All work shall be performed at the applicant's expense.
4. Tree Trimming. Tree trimming around facilities shall comply with industry standards. Tree trimming activities that impact traffic require a traffic control plan approved by the Department of Public Works. Trimming that involves a wireless support structure requires submittal of written permission from the owner of the structure to the County. The County shall not be liable for any damages, injuries, or claims arising from the applicant's actions under this subsection.

17.530.060 Regulations for tower-based wireless communication facilities

A. Development regulations. Except as provided in Section 17.530.060(B) 'Development regulations in the public right-of-way (ROW)' and in addition to Section 17.530.040 'General Development Standards,' the following applies to all tower based wireless communication facilities (facilities) for which a CUP is required.

1. Modification or collocation.

~~a. New tower-based facilities are prohibited unless a propagation study shows coverage gaps cannot be filled through other means. Technical evidence shall demonstrate the inability to fill coverage gaps through related equipment, such as repeaters or antennas installed on existing structures to extend or infill service.~~

b. A new tower-based facility within one half mile of an existing wireless support structure

may not exceed 40 feet in height unless collocation has been actually and reasonably considered and, despite good-faith efforts, the non-tower facility cannot be accommodated on an existing structure or building for one of the following reasons, or cannot be sited on land owned and maintained by the county:

i. The proposed antenna and related equipment exceeds the structural capacity of the existing building, structure or tower.
ii. The proposed antenna and related equipment causes radio frequency interference with other existing equipment for that existing building, structure, or tower and the interference cannot be prevented.
iii. The existing buildings, structures, or towers do not have adequate location, space, access, or height to accommodate the proposed equipment or to allow it to perform its intended function.
iv. An agreement could not be reached with the owner of such building, structure, or tower after a good faith effort.

2. Location.

~~a. The location of a tower-based facility shall be necessary to provide coverage for the gap shown in the propagation study for the service area.~~

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Commented [MP32]: What is intended here? 40 feet in height is unreasonably low given the trees in Kitsap County.

Commented [MP33]: We do not see other preferences for County property herein. How about incentivizing use of County property, such as allowing with an ACUP?

Commented [MP34]: See other comments regarding gaps.

b. ~~The location shall be the least visually intrusive to the surrounding community as~~ ~~shall be the only viable location to provide coverage for the gap shown in the~~ ~~propagation study~~.

3. Height.

a. ~~The propagation study will state a minimum functional height necessary for a tower-~~ ~~based facility to fill a gap in coverage.~~ A tower-based facility shall be constructed to ~~the minimum functional~~ height, ~~not to exceed 125 feet.~~ not to exceed ~~no less/no~~ ~~than surrounding tree height, and not to exceed~~ 200 feet.

b. Tower-based facilities over 40 feet in height shall be equipped with an anti-climbing feature.

4. Related equipment.

a. Ground-mounted related equipment associated, or connected, with a tower-based facility shall be placed underground or screened from public view using ~~stealth~~ ~~technologies~~ fencing and/or landscaping.

b. All related equipment, utility buildings and accessory structures shall be architecturally and aesthetically designed to blend into the environment in which they are situated and meet the minimum setback requirements of the underlying zone.

5. Signs. Tower-based facilities shall post an easily visible emergency contact sign. The sign shall include the name and phone number for a point of contact in case of an emergency. No other sign is allowed except those required by the FCC or other federal or state agencies.

6. Use of property and setbacks.

a. Sole use. A tower-based facility may be allowed as the only use on a parcel if:

i. The parcel is at least 6,000 square feet, and

ii. The distance between the base of the tower-based facility and the nearest property line is at least 110% of the proposed height of the tower-based facility.

b. Combined use. A tower-based facility may be allowed with an existing use, or on a vacant parcel in combination with another use, subject to the following minimum conditions:

i. The non-facility use on the property is any allowed use in the zone ~~, except residential,~~ and need not be affiliated with the facility.

ii. The lot:

(a) Complies with the dimensional requirements of the zone, and

(b) Is sufficiently sized to accommodate the tower-based facility and any equipment buildings, security fences, buffers and setbacks.

iii. The minimum distance between the base of a tower-based facility and the nearest property line ~~of a parcel on which a residence is located~~ is at least 110% of the proposed tower-based facility height or the minimum setback of the underlying zone, whichever is greater ~~, provided that, exceptions to this setback requirement are permitted when:~~

~~i. The setback is waived by the owner of the residence; or~~

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2. The tower is constructed with breakpoint design technology. If the tower has been constructed using breakpoint design technology, the minimum setback distance shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the applicable zone's minimum side setback requirements, whichever is greater. (For example, on a 100-foot tall tower with a breakpoint at eighty [80] feet, the minimum setback distance would be twenty-two [22] feet [110 percent of twenty (20) feet, the distance from the top of the tower to the breakpoint] or the minimum side yard setback requirements for that zone, whichever is greater.) Provided, that if an applicant proposes to use breakpoint design technology to reduce the required setback from a residence, the issuance of building permits for the tower shall be conditioned upon approval of the tower design by a structural engineer.

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~~39~~33.

~~40~~34 7. Screening, Landscaping, and Fencing.

a. Tower-based facilities shall be screened with landscaping or other screening features. This requirement applies to all associated equipment shelters, cabinets, and other ground mounted related equipment.

b. Existing trees, shrubs, and other vegetation shall be preserved to the maximum extent possible. Removal of existing vegetation requires prior approval from the department. Existing vegetation used to screen shall provide, through size and density, adequate, long-term screening. The existing vegetative buffer shall surround the entire facility and be at least five feet wide.

c. Screening shall maximize coverage ~~and cover at least 75% of the height of the tower-based facility~~. Recommended species for screening of tower-based facilities include Douglas fir, Big leaf maple, and Western redcedar. Planting height shall be at least six feet for an evergreen tree or two-inch caliper for a deciduous tree. Deciduous trees shall not exceed 25% of the trees used for screening. An analysis of the ultimate tree height potential, based on soil types, is required.

d. Additional screening may be required to adequately screen adjacent residential properties based on site specific conditions.

e. The department may allow a combination of existing vegetation, topography, walls, decorative fences or other features instead of landscaping. The combination of features must:

i. Achieve the same degree of screening.

ii. Be consistent with surrounding vegetation.

iii. Not obstruct or interfere with the use of the ROW or county work.

f. Screening requirements shall be recorded as a covenant running with the permit.

8. Access road. Tower-based facilities shall provide adequate emergency and service access to the facility. An access road, turnaround space and parking shall be provided. The access must:

a. Maximize to the extent practicable the use of existing public or private roads.

b. Match road grades to natural contours to minimize visual disturbance, soil erosion, and stormwater impacts.

c. Where the access road is not owned by the applicant, a copy of an easement authorizing the use of the access road shall be submitted to the County prior to the issuance of a building permit.

9. Parking. One tower-based facility requires at least one off-street parking space.

10. Future use. A proposed tower-based facility shall be designed structurally, electrically, and in all respects to accommodate both the proposed antennas and comparable antennas in the future.

B. Development regulations in the public right-of-way (ROW). The following additional regulations apply to all tower-based facilities located in the ROW. If any conflict exists between these regulations and those elsewhere in this chapter, the regulations herein shall control.

1. Location.

a. Tower-based facilities are prohibited from locating in the ROW in front of the façade of any structure facing the ROW.

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b. Tower facilities and related equipment in the ROW shall not cause any physical or visual obstruction to pedestrian or vehicular traffic, create safety hazards to pedestrians and/or motorists, or inconvenience public use of the ROW.

c. All equipment exceeding four inches above the ground shall be placed outside of the clear zone or mitigated in accordance with the current edition of the County Road Standards. Ground-mounted related equipment, walls, or landscaping shall be located at least eighteen inches from of the face of the curb, sidewalk or paved pathway.

d. Unless approved by the County engineer, ground-mounted related equipment is prohibited in a ROW when:

i. The ROW width is 50 feet or less.

ii. Exclusively single-family residential lots front both sides of the street.

2. Height. Tower-based facility height in the ROW shall not exceed 40 feet.

3. Design requirements. Ground-mounted related equipment that cannot be placed underground shall be screened, to the fullest extent possible, through the use of landscaping or other decorative features.

4. Construction. Time, Place and Manner. The county shall determine the time, place and manner of construction, maintenance, repair and/or removal of all tower-based facilities in the ROW based on public safety, traffic management, physical burden on the ROW, and related considerations. All work shall be performed at the applicant's expense.

5. Tree trimming. Tree trimming around facilities shall comply with industry standards. Tree trimming activities that impact traffic require a traffic control plan approved by the Department of Public Works. Trimming that involves a wireless support structure requires submittal of written permission from the owner of the structure to the County. The County shall not be liable for any damages, injuries, or claims arising from the applicant's actions under this subsection.

17.530.070 Maintenance and repair

To the extent permitted by law, the following maintenance and repair requirements shall apply:

A. All wireless communication facilities (facilities) shall be fully automated and unattended. Visitation for maintenance or emergency repairs is allowed.

B. At all times facilities shall be kept and maintained in good condition, order and repair to eliminate danger to life or property. Maintenance and repairs must:

1. Be completed by qualified maintenance and construction personnel.

2. Use the best available technology for preventing failures and accidents.

C. Graffiti. Graffiti on a facility shall be promptly removed at the sole expense of the owner or operator. The owner or operator shall remove graffiti within fourteen calendar days of the date of county notice.

D. Replacement of a support structure with a ~~identical~~ substantially similar support structure requires a letter of exemption per Section 17.530.030 C. All other support structure replacements require a CUP per Section 17.530.030 E.

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17.530.080 Abandonment and Removal

A. Abandonment.

1. Notice of intent to abandon. The owner or operator of a facility shall provide written notice to the department of the intent to abandon a facility.
2. Non-functioning facilities regulated by this chapter that remain unused for a period of 365 days shall be considered abandoned. This presumption may be rebutted by a showing that such utility or device is an auxiliary, back-up, or emergency utility or device not subject to regular use or that the facility is otherwise not abandoned.
3. Effective Date of Abandonment. Abandonment takes effect 30 days after notice is received or after the end of the rebuttable presumption period.

B. Removal.

1. All abandoned facilities, or portions thereof, shall be removed within 90 days of abandonment, unless a time extension is approved. The department may approve up to two 90-day extensions when all of the following conditions are met:
   a. The extension request is submitted in writing at least 30 calendar days prior to the expiration of the 90 days.
   b. Any significant concerns with the extension can be mitigated by minor revisions to the permit.
   c. Tangible process has been made toward abandonment.
   d. An extension would not adversely impact public health, safety or general welfare.
2. Removal shall include restoring all affected property to substantially the same condition as it was immediately before the installation of the facility, including restoration or replacement of any damaged trees, shrubs or other vegetation, unless another arrangement is made with the property owner.
3. Removal and site restoration shall be completed at the sole expense of the owner or operator of the facility.

17.530.90 Adjustments to Standards

(a) Applicability. Except as otherwise provided in this Chapter, no wireless communication facility shall be used or developed contrary to any applicable development standard unless an adjustment has been granted pursuant to this Section. These provisions apply exclusively to wireless communication facilities, and are in lieu of the County's generally applicable variance provisions.

(b) Submittal Requirements. An application for a wireless communication facility adjustment shall include:

(1) A written statement demonstrating how the adjustment would meet the criteria in this Section.

(2) A site plan that includes:

(A) Description of the proposed siting's design and dimensions, as it would appear

Commented [MP35]: Suggest adding an adjustments section for when compliance with standards would materially inhibit the provision of wireless services or when visual impacts can be minimized with such an adjustment. The typical variance criteria do not address the needs of a wireless facility and do not allow adjustment when needed under federal law (See KCMC 17.560.010 – "only when unusual circumstances relating to the property cause undue hardship in the application of this title.")

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with and without the adjustment.

(B) Elevations showing all components of the wireless communication facility, and its connection to utilities, as it would appear with and without the adjustment.

(C) Color simulations of the wireless communication facility after construction demonstrating compatibility with the vicinity, as it would appear with and without the adjustment.

(c) Criteria. An application for a wireless communication facility adjustment shall be granted if the following criteria are met:

(1) The adjustment is consistent with the purpose of the development standard for which the adjustment is sought.

(2) Based on a visual analysis, the design minimizes the visual impacts to residential zones through mitigating measures, including, but not limited to, building heights, bulk, color, and landscaping.

(3) The owner demonstrates the existence of either of the following:

(A) Material Inhibition of Wireless Service.

(i) Compliance with this Chapter's standards would materially inhibit the ability of the carrier to provide wireless service; and

(ii) The adjustment is narrowly tailored to allow the carrier to provide wireless service, such that the wireless communications facility conforms to this Chapter's standards to the greatest extent possible.

(B) Minimization of Impacts. The adjustment would minimize or eliminate negative impacts to surrounding properties and their uses, through a utilization of existing site characteristics, including, but not limited to, the site's size, shape, location, topography, improvements, and natural features. Negative impacts are minimized or eliminated if there is:

(i) A decrease in negative visual impacts, including, but not limited to, visual clutter;

(ii) Better preservation of views or view corridors;

(iii) A decrease in negative impacts on property values; or

(iv) A decrease in any other identifiable negative impacts to the surrounding area's primary uses.

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(d) Requests for adjustment under this subsection shall be considered part of the application to site a wireless communication facility, not a separate application.

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CHAPTER 17.110 DEFINITIONS.

(removals in ~~strikethrough~~, additions are underlined)

~~17.110.057 Alternative technology.~~

~~"Alternative technology" means the use of structures, fixtures, and technology which substantially limit the visibility of wireless communication support structures and facilities. This may include, but is not limited to, use of existing utility poles, flagpoles, existing structures such as water tanks, church steeples and any other method which substantially minimizes the visual impact of wireless communication support structures and facilities. This is commonly referred to as "stealth technology."~~

17.110.073 Antenna[7]

"Antenna" means an apparatus designed for the purpose of emitting radiofrequency (RF) radiation, to be operated or operating from a fixed location pursuant to Commission authorization, for the transmission of writing, signs, signals, data, images, pictures, and sounds

[7] As defined in 47 CFR 1.1320 (d). Relates to small wireless facility.

of all kinds, including the transmitting device and any on-site equipment, switches, wiring, cabling, power sources, shelters or cabinets associated with that antenna and added to a tower, structure, or building as part of the original installation of the antenna. For most services, an antenna will be mounted on or in, and is distinct from, a supporting structure such as a tower, structure or building. However, in the case of AM broadcast stations, the entire tower or group of towers constitutes the antenna for that station. For purposes of this section, the term antenna does not include unintentional radiators, mobile stations, or devices authorized under part 15 of this title (CFR Title 15).

17.110.103 Base station

"Base station" means the equipment and non-tower supporting structure at a fixed location that enable FCC-licensed or authorized wireless communications between user equipment and a communications network.

17.110.156 Carrier

"Carrier" means a telecommunications company that offers telecommunication services (as defined in 47 USC §153(53)) to users of wireless devices through radio frequency signals. Synonymous terms are mobile service provider, wireless service provider, wireless carrier or mobile carrier.

17.110.168 Collocation.

"Collocation" means the use or addition of one or more wireless communications facilities on any existing structure, whether or not already used as a wireless communication facility. ~~use of a single support structure by more than one wireless services provider where appropriate, and/or placement of up to four support structures for collocation on a specific site. This may include shared facilities with Kitsap County central communications or public safety emergency communications equipment.~~

~~**17.110.223 Directional panel antenna.**~~

~~"Directional panel antenna" means, generally, a rectangular antenna designed to transmit and receive radio frequency signals in a specific directional pattern.~~

17.110.227 Distributed Antenna Systems (DAS)

"Distributed antenna systems" means network of spatially separated antenna sites connected to a common source that provides wireless service within a geographic area or structure.

17.110.228 ~~227~~ Drinking establishments.

"Drinking establishments" means a business primarily engaged in the retail sale of alcoholic beverages for consumption on the premises, including night clubs, bars, and taverns. It shall not mean premises primarily engaged in the retail sale of food for consumption on the premises, where the sale of alcoholic beverages is clearly accessory and incidental (e.g., comprises less than twenty percent of the gross receipts). This definition excludes brew pubs.

17.110.393 Lattice support structure.

"Lattice support structure" means a ~~guyed or~~ self-supporting three or four-sided, open, metal frame structure used to support telecommunication equipment.

~~**17.110.463 Macro antenna array.**~~

~~"Macro antenna array" means an attached wireless communication facility which consists of antennas equal to or less than fifteen feet in height or a parabolic antenna up to forty inches in diameter and with an area not more than one hundred square feet in the aggregate as viewed from any one point.~~

~~**17.110.480 Micro antenna array.**~~

~~"Micro antenna array" means an attached wireless communication facility which consists of antennas equal to or less than four feet in height (except omnidirectional antennas which may be up to six feet in height) and with an area of not more than five hundred eighty square inches in the aggregate.~~

~~**17.110.483 Mini antenna array.**~~

~~"Mini antenna array" means an attached wireless communication facility which consists of antennas equal to or less than ten feet in height or a parabolic antenna up to forty inches in diameter and with an area not more than fifty square feet in the aggregate as viewed from any one point.~~

17.110.484 Minimum functional height

"Minimum Functional Height" means the shortest height at which a proposed wireless communications facility can perform its intended function. Minimum functional height is measured vertically from the ground level to the highest point on the structure, including antennas and subsequent alterations.

17.110.494 Modification

"Modification" means any change made to an existing wireless communications facility (facility). A modification constitutes a substantial change if ~~(1)~~ the change to the facility meets the definition of substantial change herein provided~~; (2) the change would defeat the existing concealment elements of the facility; or (3) the change does not comply with pre-existing conditions associated with the prior approval of construction or modification of the facility~~.

17.110.503 Monopole.

"Monopole" means a wireless communications facility that consists of a single pole structure, designed and erected on the ground or on top of a structure, to support communications antennas and connecting appurtenances. ~~structure composed of a single spire used to support telecommunication equipment.~~

~~**17.110.547 Parabolic antenna.**~~

~~"Parabolic antenna" means an antenna which is a bowl-shaped device for the reception and/or transmission of radio frequency communication signals in a specific directional pattern. (Also known as a "dish antenna.")~~

17.110.656 Related equipment

"Related equipment" means any piece of equipment related to, incidental to, or necessary for the operation of a non-tower wireless communication facility (facility) or tower-based facility. By way of illustration, not limitation, related equipment includes generators.

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Commented [MP36]: Suggest clarifying this – #3 does not include the limitation on the applicability of previously imposed conditions (see the last criterion for "substantial change"). And, #2 is redundant.

17.110.687 Stealth technology.

"Stealth technology" means the camouflaging methods applied to wireless communication facilities (facilities) to render them more visually appealing and to blend the proposed facility into the existing structure or visual backdrop in such a manner to render it minimally visible to the casual observer. Such methods include, but are not limited to, architecturally screened roof-mounted antennas, building-mounted antennas painted to match the existing structure tower-based facilities colored to match or be compatible with natural or built features, and facilities constructed to resemble trees, shrubs, light poles, flag poles, chimneys, church crosses, clock towers, gas station signs, statues, or rocks as appropriate to the surrounding environment. ~~See Section 17.110.057, Alternative technology.~~

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~~**17.110.707 Support structure.**~~

~~"Support structure" means a structure designed and constructed specifically to support a wireless communication antenna array, and may include a monopole, self-supporting (lattice) tower, guy-wire support tower and other similar structures. Any device which is used to attach an attached wireless communication facility to an existing building or structure shall be excluded from the definition of and regulations applicable to support structure.~~

17.110.708 Substantially change or substantial

"Substantially change" or "substantial change" means a modification to an existing wireless communications facility (facility) that changes the physical dimensions of the tower or base station in any of the following ways:

- Height.
  - For tower-based facilities outside the public right-of-way (ROW), the modification increases the height of the tower by more than 10%, or by the height of one additional antenna array with separation from the nearest existing antenna, not to exceed 20 feet, whichever is greater.
  - For tower-based facilities within the ROW and any base station, the modification increases the height of the facility by more than 10% or 10 feet, whichever is greater.
  - Changes in height shall be measured from the original support structure in cases where deployments are or will be separated horizontally, such as on rooftops. In all other circumstances, changes in height shall be measured from the original height of the facility plus any modification approved prior to the passage of the federal Spectrum Act (February 22, 2012).
- Width.
  - For tower-based facilities outside the ROW, the modification adds an appurtenance to the body of the tower that protrudes from the edge of the tower by more than 20 feet, or more than the width of the tower structure at the level off the appurtenance, whichever is greater.
  - For tower-based facilities within the ROW and any base station, the appurtenance protrudes from the edge of the structure by more than 6 feet.
- Equipment cabinets.

[8] The substance of this language is required by federal law and cannot be changed. See 47 CFR 1.6400010̲0̲ and FCC 14.153 at 76.

For any facility or base station outside the ROW, the modification involves installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed 4 cabinets.

For any facility or base station within the ROW, the modification involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or involves the installation of ground cabinets that are more than 10% larger in height or overall volume than any other ground cabinets associated with the structure.

Excavation.

For any facility or base station, the modification entails any excavation or deployment outside the current site. As used herein, for tower-based facilities outside the ROW, site shall mean the boundaries of the leased area including utility easements; for all other facilities, site shall mean that area adjacent to the structure and within which related equipment already exists.

Stealth technology.

For any facility or base station, the modification would defeat any concealment element.

Prior conditions of approval.

1. Except as set forth above, the modification does not comply with conditions of approval for the initial construction or any prior modification.

17.110.721 Tower

"Tower" means any structure built for the sole or primary purpose of supporting one or more antennas and related equipment, including but not limited to, self-supporting lattice towers, guy towers and monopoles, but not including poles and structures supporting small wireless facilities.

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17.110.724 Tower-guy-wired

Tower-guy-wired" means a tower supported by a tensioned cable designed to add stability to a free-standing structure.

17.110.764 Wireless

"Wireless" means transmissions through the airwaves including, but not limited to, infrared line of sight, cellular, broadband personal communication service, microwave, satellite, or radio signals.

~~**17.110.765 Wireless communication antenna array.**~~

~~"Wireless communication antenna array" means one or more rods, panels, discs or similar devices used for the transmission or reception of radio frequency (RF) signals through electromagnetic energy that can be attached to a building or sign. Wireless communication antenna array examples may include an omni-directional antenna (whip), a directional antenna (panel) and/or a parabolic antenna (dish).~~

17.110.770 Wireless communication facility.

"Wireless communication facility" means the antennas, nodes, control boxes, towers, poles, conduits, ducts, pedestals, electronics and other related equipment used for the purpose of

transmitting, receiving, distributing, providing, or accommodating wireless communications services. ~~any unstaffed facility used for the transmission and/or reception of radio frequency (RF) signals through electromagnetic energy. This usually consists of an equipment shelter or cabinet, a support tower or structure used to achieve the necessary elevation, and the antenna array.~~

A. A "Small wireless facility"[9] means a facility that meets each of the following conditions:
   The facility:
   e. Is mounted on a structure 50 feet or less in height, with the height including any antennas; or
   f. Is mounted on a structure no more than 10 percent taller than other adjacent structures; or
   g. Does not extend an existing structure on which is to be located to a height of more than 50 feet or by more than 10 percent, whichever is greater.
   Each antenna associated with the facility, excluding associated antenna equipment is no more than three cubic feet in volume; and
   All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume; and
   The facility is not required to be registered with the FCC under 47 CFR Part 17; and
   5. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable FCC safety standards in 47 CFR 1.1307(b).

B. A "non-tower wireless facility" means a facility that is not a small wireless facility and does not involve, as part of the initial installation or construction, a wireless support structure. The term includes antennas, data collections units, and related equipment, but shall not include any wireless support structure. Except as allowed for small wireless facilities, the need to construct a wireless support structure will transform the non-tower facility into a tower-based facility.

~~28~~C. A "tower-based wireless facility" means a facility installed or constructed with a Tower. Small wireless facilities mounted on poles and other support structures are not a tower-based facility.
~~29~~ Unless a DAS hub facility meets the definition of a small wireless facility, the DAS hub shall
~~30~~28 be considered a tower-based facility.

~~31~~ **17.110.775 Wireless ~~communication support structure.~~**

~~32 "Wireless communication support structure" means a freestanding structure, such as a tower-~~
~~33 based wireless communication facility, or any other support structure that could (or does)~~
~~34 support the placement or installation of a facility. structure specifically designed to support a~~
~~35 wireless communication antenna array. This may include a monopole structure, lattice~~
~~36~~29 ~~structure or building.~~

~~37~~30 ~~**17.110.780 Whip antenna.**~~
~~38~~31 ~~"Whip antenna" means an antenna that is cylindrical in shape up to twenty feet in height~~

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[9] The substance of this language is required by federal law and cannot be changed. Required by FCC 18-133.

CHAPTER 12.04 PROJECT PERMIT APPLICATION PROCEDURES.

(removals in ~~strikethrough~~, additions are underlined)

21.04.020 Applicability.

A. Unless otherwise provided, the regulations identified in this chapter shall apply to the following Kitsap County Code (KCC) provisions:
   1. Sections 11.36.060(1) through (4), roads; and Section 11.22.070(a), roads;
   2. Title 12, Stormwater Drainage, Chapters 12.04 through 12.20 and 12.28 through Section 12.32.090;
   3. Title 16, Land Division and Development;
   4. Title 17, Zoning, except Chapter 17.530 'Wireless Communication Facilities';
   5. Title 18, Environment;
   6. Title 19, Critical Areas Ordinance; and
   7. Title 22, Shoreline Master Program.

WCF_8_Attach_Stocking_Marcia_2019_0219 Received 01/02/19

Marcia J. Stocking
209 Tracy Ave. S.
Port Orchard WA 98366

Mr. James Svensson
Kitsap County Planning Commission
619 Division St.
2nd Floor
Port Orchard WA 98366

December 28, 2018

Re: 5 G in Kitsap County

Dear Mr. Svensson,

I am 71 years old and have been a resident of Kitsap County for almost 60 years. I wanted to attend the December 18, 2018 Planning Commission information meeting regarding 5G technologies in Kitsap County, but the roads in Port Orchard were being used by emergency entities due to their need to move freely during the tornado response. However, I did view the BRAT TV recording of the meeting, in which Lelah Vaga of Verizon presented Verizon's information regarding 5G coming to Kitsap County.

I am writing because you raised concerns about EMF health risks in your questions to Ms. Vaga.
I became aware of EMF health risks of 3G and 4G 10 years ago, and I have limited my exposure to them by not using wifi in my home, limiting cell phone use, using yellow glasses at my computer and opting out of smart TVs, and a smart home. Ms. Vaga's answer of Verizon following FCC regulations still gives me concerns about having 5G in my neighborhood for the following reasons:

- Senator Richard Blumenthal and Representative Anna Eshoo have sent a letter to the FCC regarding the health hazards of 5G.
- Nicolas Pineault's 2017 book, The Non-Tinfoil Guide to EMFs, is a thorough guide to the health risks of EMFs and how to mitigate them. In this book Mr. Pineault states that 30% of EMF damage studies are funded by the wireless industry. Mr. Pineault states that the other 70% by independent research includes double blind, randomized research. Of the wireless industry reports 27% show biological effects in humans, and independent studies show a 68% effect. 5G is too new to have long term effect research
- September 2018 France banned cellphone use around primary and middle schools, because of health hazards to children.
- Lloyd Burrell's EMF Summit made available in December 2018 contains discussions and research by 30 experts on the vast EMF dangers studied by physicists, medical practitioners, engineers, etc. from all over the world.
- I will have no opt out opportunity from 5G, since the microwave radiation will come from light and telephone poles on my street.
- Ms. Vaga stated colocation of equipment is not possible, so neighborhoods could be exposed to 5G radiation from multiple telecommunication carriers.

I realize from the presentation by Deputy Prosecutor, Lisa Nichols, that FCC regulations do not allow Kitsap County to restrict wireless carriers from placing equipment in Kitsap County, but I am requesting that the Kitsap County Planning Commission protect the residents of our county by including strict safety guidelines in your new codes. Faster speeds and increased capacity for telecommunication businesses should not override public health. One of the Planning Commission's points of your proposed code updates states, "ensure public health, safety and welfare".

I have enclosed copies of the Environmental Health Trust's request for moratorium on rolling out 5G based on health risks, and their Scientific Research points on 5G and Health for your review. I request that the Planning Commission do everything possible to ensure the public safety in the code changes and the recommendations to the Kitsap County Commissioners.

Respectfully Submitted,

Marcia J. Stocking

ENVIRONMENTAL HEALTH TRUST

What You Need To Know About 5G Wireless and "Small" Cells

"We recommend a moratorium on the roll-out of the fifth generation, 5G, for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from industry...RF-EMF has been proven to be harmful for humans and the environment."

— 2017 5G Scientific Appeal (signed by more than 200 scientists and doctors from 35 countries)

Nationwide, communities are being told by wireless companies that it is necessary to build "small cell" wireless facilities in neighborhoods on streetlight and utility poles in order to offer 5G, a new technology that will connect the Internet of Things (IoT). At the local, state, and federal level, new legislation and new zoning aim to streamline the installation of these 5G "small cell" antennas in public rights-of-way.

The radiation from small cells is not small: Wireless antennas emit microwaves — non-ionizing radiofrequency radiation — and essentially function as cell towers. Each installation can have over a thousand antennas that are transmitting simultaneously.

Millions of small cells to be built in front yards: The Federal Communications Commission estimates that millions of these wireless transmitters will be built in our rights-of-way, directly in front of our homes.

5G will add to — not replace — our current wireless technology: 5G will not only utilize current 3G and 4G wireless frequencies already in use but also add higher frequency — submillimeter and millimeter waves — in order to transmit data at superfast speeds.

Community authority is overruled: Communities are being stripped of their right to make decisions about this new technology. "Streamlining" means almost automatic approval. Public notice and public hearings are being eliminated. Even if every homeowner on the block opposes the antennas on their street, the opposition will be disregarded.

Scientists worldwide are calling for a halt to the 5G Roll-out: Over 200 scientists and doctors issued a declaration calling for a moratorium on the increase of 5G cell antennas citing human health effects and impacts to wildlife.
Read the 2017 Scientific Appeal on 5G To the European Commission
Read the 2015 EMF Scientist Appeal to the United Nations
Read Letters From Dozens of Scientists on Health Risks of 5G

Cumulative daily radiation exposure poses serious public health risks: Peer reviewed, published science indicates that exposures to wireless radiation can increase cancer risk, alter brain development and damage sperm. Most people are unaware that wireless technology was never tested for long-term safety, that children are more vulnerable and that the accumulated scientific evidence shows harm.

Decreased property values: Studies show property values drop up to 20% on homes near cell towers. Would you buy a home with a mini cell tower in the yard? Read research showing decreased property value from cell towers near homes.

Microwave antennas in front yards present several worker and public safety issues: Unions have already filed comments that workers were injured, unaware they were working near transmitting antennas. How will HVAC workers, window washers, and tree cutters be protected? The heavy large equipment cabinets mounted on poles along our sidewalks also present new hazards. Cars run into utility poles, often, what then? US Dept of Labor letters on cell tower safety

Fiber is the safe alternative: Worldwide, many regions are investing in wired fiberoptic connections which are are safer, faster, more reliable, provide greater capacity, and are more cyber-secure. Read "Re-Inventing Wires: The Future of Landlines and Networks," by the National Institute for Science, Law & Public Policy

www.ehtrust.org

All text in this document in blue is hyperlinked to resources for more information.
Please also see https://ehtrust.org/factsheet-need-know-5g-small-cells-science-policy-public-health/ for additional resources.

KEY RESEARCH AND REPORTS

5G Frequencies Are Absorbed Into the Skin
Physicists found that the higher millimeter frequencies intended for 5G use are preferentially absorbed into the sweat duct at much higher rates than other organ tissues. Read two published studies "The Modeling of the Absorbance of the Sub-THz Radiation by Human Skin." The human skin as a sub-THz receiver – Does 5G pose a danger to it or not? Paul Ben-Ishai, PhD Lecture.

5G Frequencies Are Used As Weapons
Millimeter frequencies have the capacity to cause a severe burning sensation in the skin and are used by the U.S. Department of Defense in crowd control guns called Active Denial Systems.

Landmark US National Toxicology Program (NTP) Study Finds "Clear Evidence of Cancer" and DNA Damage
The NTP studies found male rats exposed for two years to cell phone radiation developed significantly increased gliomas (brain cancer) and schwann cell tumors, the very same types of tumors increased in long-term human cell phone users. NIH/NTP presentation on DNA results states "exposure to RFR has the potential to induce measurable DNA damage under certain exposure conditions." Press Coverage, Peer Review Report

Cell Tower Radiation is Linked To Damage in Human Blood
A published study compared people living close and far from cell antennas and found people living closer to cellular antennas had changes in blood that predicts cancer development. Read Zothansiama et al, 2017. Read a Compilation of Research on Cell Tower Radiation

Published Scientific Review on 5G Finds Adverse Effects
Scientific literature documents evidence of nonthermal cellular damage from wireless radiation used in telecommunications to DNA integrity, cellular membranes, gene expression, protein synthesis, neuronal function, the blood brain barrier, melatonin production, sperm damage and immune dysfunction. Russell 2018

Cellular Radiation Negatively Impacts Birds and Bees
Published research finds the frequencies alter bird navigation and disturb honeybee colonies. Research on EMF and Bees. Research on Wildlife

RESOURCES

Research on 5G and Cell Tower Radiation

A 5G Wireless Future: Will it give us a smart nation or contribute to an unhealthy one?" Santa Clara Medical Association Bulletin, Cindy Russell MD, 2017

Letters by Scientists in Opposition To 5G Research on Cell Tower Radiation, 2017

Biological Effects from Exposure to Electromagnetic Radiation Emitted by Cell Tower Base Stations and Other Antenna Arrays, Levitt and Lai, 2010

Radiofrequency radiation injures trees around mobile phone base stations, Waldmann-Selsam et al., 2016

Department of Interior Letter on the Impact of Cell Towers on Migratory Birds, Willie R. Taylor Director, Office of Environmental Policy and Compliance, 2014

Anthropogenic radiofrequency electromagnetic fields as an emerging threat to wildlife orientation, Balmori, 2015

Briefing Memorandum On The Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife, Manville, 2016

Database of Worldwide International Policy To Reduce EMF

Youtube Scientific Videos on 5G

TAKE ACTION

Contact local, state and federal elected officials in person.

Share this information with your friends, family and community.

Ask for government policy that reduces RFR exposure to the public.

Citizens in all states must organize and take action to halt legislation that increases cell antennas in neighborhoods.

LEARN MORE

Federal Legislation To Know

US States With Streamlining Bills

5G Small Cell Antennas To Be Placed On:
- Street lights
- Trashcans
- Utility poles
- Bus stops
- Sides of buildings

5 Reasons Why Small Cells Are Not Small
- Increased radiation near homes
- Refrigerator-sized equipment cabinet
- Drop in property values
- Taller poles
- Fixtures weigh hundreds of pounds

Crown Castle's 2016 10-K Annual Report says:
"If radio frequency emissions from wireless handsets or equipment on our wireless infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues... We currently do not maintain any significant insurance with respect to these matters."

Read warnings from Crown Castle, Verizon and other wireless companies.

The American Academy of Pediatrics says:
"An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing:
- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems"

AAP on Cell Towers

Letter from oncologist Lennart Hardell MD & Colleagues: "There is a substantial body of evidence that this technology is harmful to humans and the environment. The 5G millimeter wave is known to heat the eyes, skin and testes... Of particular concern are the most vulnerable among us — the unborn, children, the infirm, the elderly and the disabled. It is also expected that populations of bees and birds will drastically decline."

2017 Scientific Letter

Peer Reviewed Research Studies on Radiofrequency Radiation Have Found:
- Headaches
- Sperm damage
- Altered brain development
- Depression
- Neurological symptoms
- Hormone changes
- Memory problems
- Sleep problems
- Cancer

Science:

BioInitiative 2012 Report by Independent Scientists
Dr. Moskowitz, University of California at Berkeley
Dr. Lennnart Hardell Örebro University Sweden
The Baby Safe Project
Whatis5g.info
Physicians for Safe Technology
Environmental Health Trust 5G Resources

Scientific Research On 5G And Health

Published Scientific Research on 5G and Health

Published peer reviewed science already indicates that the current wireless technologies of 2G, 3G and 4G – in use today with our cell phones, computers and wearable tech – creates (create) radiofrequency exposures which poses (pose) a serious health risk to humans, animals and the environment. Scientists are cautioning that before rolling out 5G, research on human health effects urgently needs to be done first (redundant... you already said "before") to ensure the public and environment are protected. 5G will utilize not only the frequencies currently in use, but also higher millimeter wave and submillimeter wave frequencies. This page lists important research on 5G, the environment and human health.

- **Learn more about 5G on EHT's (https://ehtrust.org/key-issues/cell-phoneswireless/5g-internet-everything/)database of resources here. (https://ehtrust.org/key-issues/cell-phoneswireless/5g-internet-everything/)**
- **Click here for EHT's list of Scientists letters OnHealth Impacts of 5G (https://ehtrust.org/small-cells-mini-cell-towers-health-letters-scientists-health-risk-5g/)**
- **Click here to read research in cell tower radiation linked to health effects (https://ehtrust.org/science/cell-towers-and-cell-antennae/compilation-of-research-studies-on-cell-tower-radiation-and-health/)**
- **Click here to get the EHT factsheet on 5G (https://ehtrust.org/wp-content/uploads/5G_What-You-Need-to-Know.pdf)**

Russell CL. 5G wireless telecommunications expansion: Public health and environmental implications. (https://doi.org/10.1016/j.envres.2018.01.016)**Environmental Research. Available online 11 April 2018. in press.**

- "On the horizon, a new generation of even shorter high frequency 5G wavelengths is being proposed to power the Internet of Things (IoT)."
- "It is argued that the addition of this added high frequency 5G radiation to an already complex mix of lower frequencies, will contribute to a negative public health outcome both from both physical and mental health perspectives."
- "Like other common toxic exposures, the effects of radiofrequency electromagnetic radiation (RF EMR) will be problematic if not impossible to sort out epidemiologically as there no longer remains an unexposed control group. This is especially important considering these effects are likely magnified by synergistic toxic exposures and other common health risk behaviors. Effects can also be non-linear. Because this is the first generation to have cradle-to-grave lifespan exposure to this level of man-made microwave (RF EMR) radiofrequencies, it will be years or decades before the true health consequences are known. Precaution in the roll out of this new technology is strongly indicated."
- "Current radiofrequency radiation wavelengths we are exposed to appear to act as a toxin to biological systems. A moratorium on the deployment of 5G is warranted, along with development of independent health and environmental advisory boards that include independent scientists who research biological effects and exposure levels of radiofrequency radiation. Sound regulatory policy regarding current and future telecommunications initiative will require more careful assessment of risks to human health, environmental health, public safety,

privacy, security and social consequences. Public health regulations need to be updated to match appropriate independent science with the adoption of biologically based exposure standards prior to further deployment of 4G or 5G technology."

Betzalel N, Ben Ishai P, Feldman Y., The human skin as a sub-THz receiver – Does 5G pose a danger to it or not? (https://www.ncbi.nlm.nih.gov/pubmed/29459303) **Environ Res. 2018 May;163:208-216. doi: 10.1016/j.envres.2018.01.032. Epub 2018 Feb 22.**

- Experimentally we showed that the reflectance of the human skin in the sub-THz region depends on the intensity of perspiration, i.e. sweat duct's conductivity, and correlates with levels of human stress (physical, mental and emotional). Later on, we detected circular dichroism in the reflectance from the skin, a signature of the axial mode of a helical antenna. The full ramifications of what these findings represent in the human condition are still unclear. We also revealed correlation of electrocardiography (ECG) parameters to the sub-THz reflection coefficient of human skin. In a recent work, we developed a unique simulation tool of human skin, taking into account the skin multi-layer structure together with the helical segment of the sweat duct embedded in it. The presence of the sweat duct led to a high specific absorption rate (SAR) of the skin in extremely high frequency band.
- In this paper, we summarize the physical evidence for this phenomenon and consider its implication for the future exploitation of the electromagnetic spectrum by wireless communication. Starting from July 2016 the US Federal Communications Commission (FCC) has adopted new rules for wireless broadband operations above 24 GHz (5 G). This trend of exploitation is predicted to expand to higher frequencies in the sub-THz region. One must consider the implications of human immersion in the electromagnetic noise, caused by devices working at the very same frequencies as those, to which the sweat duct (as a helical antenna) is most attuned.
- We are raising a warning flag against the unrestricted use of sub-THz technologies for communication, before the possible consequences for public health are explored.

Thielens **et al., "Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz (https://www.nature.com/articles/s41598-018-22271-3)" Scientific Reports volume 8, Article number: 3924 (2018)**

- Excerpts from abstract: "Insects are continually exposed to Radio-Frequency (RF) electromagnetic fields at different frequencies. This paper is the first to report the absorbed RF electromagnetic power in four different types of insects as a function of frequency from 2 GHz to 120 GHz. A set of insect models was obtained using novel Micro-CT (computer tomography) imaging. These models were used for the first time in finite-difference time-domain electromagnetic simulations. All insects showed a dependence of the absorbed power on the frequency. All insects showed a general increase in absorbed RF power at and above 6 GHz, in comparison to the absorbed RF power below 6 GHz. Our simulations showed that a shift of 10% of the incident power density to frequencies above 6 GHz would lead to an increase in absorbed power between 3–370%."
- "This could lead to changes in insect behaviour, physiology, and morphology over time due to an increase in body temperatures, from dielectric heating. The studied insects that are smaller than 1 cm show a peak in absorption at frequencies (above 6GHz), which are currently not often used for telecommunication, but are planned to be used in the next generation of wireless telecommunication systems."

Miller AB, Morgan LL, Udasin I, Davis DL. Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102) (https://doi.org/10.1016/j.envres.2018.06.043). Available online Sep 6, 2018. https://doi.org/10.1016/j.envres.2018.06.043 (https://doi.org/10.1016/j.envres.2018.06.043)

- Increased risk of brain, vestibular nerve and salivary gland tumors are associated with mobile phone use.
- Nine studies (2011–2017) report increased risk of brain cancer from mobile phone use.
- Four case-control studies (3 in 2013, 1 in 2014) report increased risk of vestibular nerve tumors.
- Concern for other cancers: breast (male & female), testis, leukemia, and thyroid.
- Based on the evidence reviewed it is our opinion that IARC's current categorization of RFR as a possible human carcinogen (Group 2B) should be upgraded to Carcinogenic to Humans (Group 1).

Betzalel, Y. Feldman, and P. Ben Ishai, "The Modeling of the Absorbance of Sub-THz Radiation by Human Skin," (http://ieeexplore.ieee.org/document/8016593/) **IEEE Trans. THz Sci. Tech. (Paris) 7(5), 521–528 (2017).**

- In 2008, we demonstrated that the coiled portion of the sweat duct in upper skin layer could be regarded as a helical antenna in the sub-THz band. The full ramifications of what these findings represent in the human condition are still very unclear, **but it is obvious that the absorption of electromagnetic energy is governed by the topology for the skin and its organelles, especially the sweat duct.**

Di Ciaula, Towards 5G communication systems: Are there health implications? (https://www.ncbi.nlm.nih.gov/pubmed/29402696), Int J Hyg Environ Health. 2018 Feb 2.

- "Preliminary observations showed that MMW increase skin temperature, alter gene expression, promote cellular proliferation and synthesis of proteins linked with oxidative stress, inflammatory and metabolic processes, could generate ocular damages, affect neuro-muscular dynamics."

- "Further studies are needed to better and independently explore the health effects of RF-EMF in general and of MMW in particular. However, available findings seem sufficient to demonstrate the existence of biomedical effects, to invoke the precautionary principle, to define exposed subjects as potentially vulnerable and to revise existing limits.

Nasim I, Kim S. Human Exposure to RF Fields in 5G Downlink (https://arxiv.org/abs/1711.03683)**. Submitted on 10 Nov 2017 to IEEE International Communications Conference.**

- "Prior research on human exposure to radio frequency (RF) fields in a cellular communications system has been focused on uplink only due to the closer physical contact of a transmitter to a human body. However, this paper claims the necessity of thorough investigation on human exposure to downlink RF fields, as cellular systems deployed in mmW bands will entail (i) deployment of more transmitters due to smaller cell size and (ii) higher concentration of RF energy using a highly directional antenna.
- In this paper, we present human RF exposure levels in downlink of a Fifth Generation Wireless Systems (5G). Our results show that 5G downlink RF fields generate significantly higher power density (PD) and specific absorption rate (SAR) than a current cellular system. This paper also shows that SAR should also be taken into account for determining human RF exposure in the mmW downlink."

Soubere Mahamoud Y, Aite M, Martin C, Zhadobov M, Sauleau R, Le Dréan Y, et al. (2016) Additive Effects of Millimeter Waves and 2-Deoxyglucose Co-Exposure on the Human Keratinocyte Transcriptome. (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160810)PLoS ONE 11(8): e0160810.

- Millimeter Waves (MMW) will be used in the next-generation of high-speed wireless technologies, especially in future Ultra-Broadband small cells in 5G cellular networks. Therefore, their biocompatibilities must be evaluated prior to their massive deployment. Using a microarray-based approach, we analyzed modifications to the whole genome of a human keratinocyte model that was exposed at 60.4 GHz-MMW at an incident power density (IPD) of 20 mW/cm^2 for 3 hours in athermic conditions. No keratinocyte transcriptome modifications were observed. We tested the effects of MMWs on cell metabolism by co-treating MMW-exposed cells with a glycolysis inhibitor, 2-deoxyglucose (2dG, 20 mM for 3 hours), and whole genome expression was evaluated along with the ATP content. We found that the 2dG treatment decreased the cellular ATP content and induced a high modification in the transcriptome (632 coding genes). The affected genes were associated with transcriptional repression, cellular communication and endoplasmic reticulum homeostasis. The MMW/2dG co-treatment did not alter the keratinocyte ATP content, but it did slightly alter the transcriptome, which reflected the capacity of MMW to interfere with the bioenergetic stress response. The RT-PCR-based validation confirmed 6 MMW-sensitive genes (*SOCS3*, *SPRY2*, *TRIB1*, *FAM46A*, *CSRNP1* and *PPP1R15A*) during the 2dG treatment. These 6 genes encoded transcription factors or inhibitors of cytokine pathways, which raised questions regarding the potential impact of long-term or chronic MMW exposure on metabolically stressed cells.

Mandl P, Pezzei P, Leitgeb E. Selected Health and Law Issues Regarding Mobile Communications with Respect to 5G. Presented at 2018 International Conference on Broadband Communications for Next Generation Networks and Multimedia Applications (CoBCom). (https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8423924) Graz, Austria. July 11-13, 2018.

- Abstract: Over the next years the demand of wireless communication will increase tremendously. More and more mobile end devices require a high data rate connection e.g. to a smart home (Internet of Things, IoT) or to the internet. The radiation power pattern of base stations and mobile end devices will completely change for the 5G Next Generation Mobile Network technology which will use frequency bands up to 100 GHz. Therefore the electromagnetic exposure especially to human body will increase in the future, because most of the wireless connections are realized in RF technology. In this contribution two different measurement setups are presented. The first shows the electromagnetic radiation regarding a base station powered by a mobile phone provider over a timespan of a number of days. The second figures out the electromagnetic radiation of a handheld mobile end device to a human head in an area with very poor reception values. The results of those measurements where compared with legal and health limits. All measured and calculated results regarding the base stations were within the legal exposure limits. The calculated legal exposure limits of mobile devices were exceeded twice in areas within very poor reception values. Regarding the expected higher bandwidth and corresponding higher electromagnetic exposure to human bodies in future there have to be periodic measurements to comply with radiation limits.
- Excerpts: "Regarding the above mentioned circumstances **it will be necessary to measure the radiation exposure of base stations in the future on a regular basis in order to ensure the legal limits and to reduce possible health hazards. It also will be necessary to develop new measurement strategies and/or technologies regarding the large frequency spectrum 5G will use up to 100 GHz. ...When measuring directly on a mobile phone (simulating the use of an end device directly on the human head), it was found that the calculated SAR of 3.834 *W/kg* exceeds the legal limit of 2 W/ *kg*. This shows clearly that the legal limit values can be exceeded significantly in areas with very poor reception values ...**Increasing the distance between a mobile end device and the head, e.g. by using a hands-free set or a headset can significantly reduce the human exposure to electromagnetic radiation when such a device is used in badly supplied areas and transmits with maximum power."

Neufeld E, Kuster N. Systematic Derivation of Safety Limits for Time-Varying 5G Radiofrequency Exposure Based on Analytical Models and Thermal Dose (https://www.ncbi.nlm.nih.gov/pubmed/30247338). Health Phys. 2018 Sep 21.

Extreme broadband wireless devices operating above 10 GHz may transmit data in bursts of a few milliseconds to seconds. Even though the time- and area-averaged power density values remain within the acceptable safety limits for continuous exposure, **these bursts may lead to short temperature spikes in the skin of exposed people.**

- In this paper, a novel analytical approach to pulsed heating is developed and applied to assess the peak-to-average temperature ratio as a function of the pulse fraction α (relative to the averaging time [INCREMENT]T; it corresponds to the inverse of the peak-to-average ratio).
- To stay consistent with the current safety guidelines, safety factors of 10 for occupational exposure and 50 for the general public were applied.
- The results demonstrate that the maximum averaging time, based on the assumption of a thermal time constant of 100 s, is 240 s if the maximum local temperature increase for continuous-wave exposure is limited to 1 K and $\alpha \geq 0.1$. For a very low peak-to-average ratio of 100 ($\alpha \geq 0.01$), it decreases to only 30 s.
- **The results also show that the peak-to-average ratio of 1,000 tolerated by the International Council on Non-Ionizing Radiation Protection guidelines may lead to permanent tissue damage after even short exposures,** highlighting the importance of revisiting existing exposure guidelines.

TRIPATHI et al., Frequency of the resonance of the human sweat duct in a normal mode of operation (https://www.osapublishing.org/DirectPDFAccess/D9A2E695-D15D-19E6-03A77C91ED8C556F_382113/boe-9-3-1301.pdf?da=1&id=382113&seq=0&mobile=no)**, BIOMEDICAL OPTICS EXPRESS 130, Vol. 9, No. 3 | 1 March 2018**

- This result indicates that careful consideration should be given while designing electronic and photonic devices operating in the sub-terahertz frequency region in order to avoid various effects on human health due to these waves.

Pakhomov et. al., Current state and implications of research on biological effects of millimeter waves: a review of the literature (https://www.ncbi.nlm.nih.gov/pubmed/9771583#). Bioelectromagnetics. 1998;19(7):393-413.

- "This paper analyzes general trends in the area and briefly reviews the most significant publications, proceeding from cell-free systems, dosimetry, and spectroscopy issues through cultured cells and isolated organs to animals and humans.
- The studies reviewed demonstrate effects of low-intensity MMW (10 mW/cm2 and less) on cell growth and proliferation, activity of enzymes, state of cell genetic apparatus, function of excitable membranes, peripheral receptors, and other biological systems. In animals and humans, local MMW exposure stimulated tissue repair and regeneration, alleviated stress reactions, and facilitated recovery in a wide range of diseases (MMW therapy). Many reported MMW effects could not be readily explained by temperature changes during irradiation."

Wu T, Rappaport TS, Collins CM, "The Human Body and Millimeter-Wave Wireless Communication Systems: Interactions and Implications," (https://arxiv.org/pdf/1503.05944.pdf) (2015). Accepted in 2015 IEEE International Conference on Communications (ICC), NYU WIRELESS. 2015

- This paper gives examples of today's regulatory requirements, and provides an example for a 60 GHz transceiver. Also, the propagation characteristics of millimeter-waves in the presence of the human body are studied, and four models representing different body parts are considered to evaluate thermal effects of millimeter-wave radiation on the body. Simulation results show that about 34% to 42% of the incident power is reflected at the skin surface at 60 GHz. This paper shows that power density is not suitable to determine exposure compliance when millimeter wave devices are used very close to the body. A temperature-based technique for the evaluation of safety compliance is proposed in this paper.

Wu T et al., Safe for Generations to Come. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629874/) IEEE Microw Mag. 16(2): 65–84. 2015

"A literature survey representing the most recent available results related to the biological effects of mmWave exposure, from the well-understood and well-accepted effects of thermal heating to recent reports of nonthermal effects and the attempt to motivate further discussion and research for appropriate emission standards."

- "We highlighted the findings of mmWave radiation studies on the eyes and skin since, in communication applications, these tissues would receive the most radiation, with other tissues receiving, by comparison, a negligible amount. Ocular injury can be induced by short-term high-intensity exposure (e.g., 2,000 mW/cm2, 1.5–5 s) far beyond the anticipated future communication device levels, but the eyes do not appear to suffer damage from longer low-intensity exposure (e.g., 10 mW/cm2, 8 h), which might be experienced from mmWave communication technologies in the far field.
- More work may be required to determine the possible effects from exposure above 10 mW/cm2 that might be experienced in the near field from specific communication devices with adaptive antennas as well as to ensure that mechanisms are in place to ensure that no hazardous levels of energy are transmitted into the eyes. We also showed that using typical power levels, there would be no unsafe temperature increase caused by exposure of skin to mmWave communication technologies in the far field.
- As with the eyes, however, more work is required to determine temperature increases from higher exposure levels that might be experienced in the near field from specific communication devices with high-gain antennas and to develop and demonstrate reliable mechanisms to ensure that no hazardous levels of energy are transmitted to the skin."

Ramundo-Orlando A., Effects of millimeter waves radiation on cell membrane – A brief review. (https://link.springer.com/article/10.1007%2Fs10762-010-9731-z) (2010) Journal of Infrared, Millimeter, and Terahertz Waves. 2010; 31(12):1400–1411.

- The millimeter waves (MMW) region of the electromagnetic spectrum, extending from 30 to 300 GHz in terms of frequency (corresponding to wavelengths from 10 mm to 1 mm), is officially used in non-invasive complementary medicine in many Eastern European countries against a variety of diseases such gastro duodenal ulcers, cardiovascular disorders, traumatism and tumor. On the other hand, besides technological applications in traffic and military systems, in the near future MMW will also find applications in high resolution and high-speed wireless communication technology. This has led to restoring interest in research on MMW induced biological effects. In this review emphasis has been given to the MMW-induced effects on cell membranes that are considered the major target for the interaction between MMW and biological systems.

Scientific Citations from the published study "Potential Risks to Human Health Originating from Future Sub-MM Communication Systems" by Paul Ben-Ishai, PhD and Yuri Feldman, PhD

- Feldman, Yuri and Paul Ben-Ishai. "Potential Risks to Human Health Originating from Future Sub-MM Communication Systems." (https://ehtrust.org/wp-content/uploads/Yuri-Feldman-and-Paul-Ben-Ishai-Abstract.pdf) Abstract, 2017.
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"Electromagnetic Fields: A Hazard to Your Health?" on Cell Tower Radiation

"In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing:

- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems

Short-term exposure to these fields in experimental studies have not always shown negative effects, but this does not rule out cumulative damage from these fields, so larger studies over longer periods are needed to help understand who is at risk. In large studies, an association has been observed between symptoms and exposure to these fields in the everyday environment."

–American Academy of Pediatrics (https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Electromagnetic-Fields-A-Hazard-to-Your-Health.aspx)

Compilation of Research Studies on Cell Tower Radiation and Health

Zothansiama, et al. "Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations." (http://www.tandfonline.com/doi/abs/10.1080/15368378.2017.1350584) Electromagnetic Biology and Medicine 36.3 (2017): 295-305.

- This study evaluated effects in the human blood of individuals living near mobile phone base stations (within 80 meters) compared with healthy controls (over 300 meters). The study found higher radiofrequency radiation exposures and statistically significant differences in the blood of people living closer to the cellular antennas. The group living closer to the antennas had for example, statistically significant higher frequency of micronuclei and a rise in lipid peroxidation in their blood. These changes are considered biomarkers predictive of cancer.

Neurobehavioral effects among inhabitants around mobile phone base stations (http://www.ncbi.nlm.nih.gov/pubmed/16962663) Abdel-Rassoul et al, Neurotoxicology, 2007

- This study found that living nearby mobile phone base stations (cell antennas) increased the risk for neuropsychiatric problems such as headaches, memory problems, dizziness, tremors,depression, sleep problems and some changes in the performance of neurobehavioral functions.

Biological Effects from Exposure to Electromagnetic Radiation Emitted by Cell Tower Base Stations and Other Antenna Arrays (http://www.researchgate.net/publication/233593841_Biological_effects_from_exposure_to_electromagnetic_radiation_emitted_by_cell_tower_base_ Levitt & Lai, Environmental Reviews, 2010

- This review of 100 studies found approximately 80% showed biological effects near towers. "Both anecdotal reports and some epidemiology studies have found headaches, skin rashes, sleep disturbances, depression, decreased libido, increased rates of suicide, concentration problems, dizziness, memory changes, increased risk of cancer, tremors, and other neurophysiological effects in populations near base stations."

Mortality by neoplasia and cellular telephone base stations. (http://www.sciencedirect.com/science/article/pii/S0048969711005754) Dode et al. (Brazil), Science of the Total Environment, Volume 409, Issue 19, 1 September 2011, Pages 3649–3665

- This 10 year study on cell phone antennas by the Municipal Health Department in Belo Horizonte and several universities in Brazil found a clearly elevated relative risk of cancer mortality at residential distances of 500 meters or less from cell phone transmission towers. Shortly after this study was published, the city prosecutor sued several cell phone companies and requested that almost half of the cities antennas be removed. Many antennas were dismantled.

Epidemiological Evidence for a Health Risk from Mobile Phone Base Stations (http://www.researchgate.net/publication/45387389_Epidemiological_evidence_for_a_health_risk_from_mobile_phone_base_stations) Khurana, Hardell et al., International Journal of Occupational Environmental Health, Vol 16(3):263-267, 2010

- A review of 10 epidemiological studies that assessed for negative health effects of mobile phone base stations (4 studies were from Germany, and 1 each from Austria, Egypt, France, Israel, Poland, Spain) found that seven showed altered neurobehavioral effects near cell tower and three showed increased cancer incidence. The review also found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances < 500 meters from base stations. Lower cognitive performance was found in individuals living ≤ 10 meters from base stations. None of the studies reported exposure above accepted international guidelines, suggesting that current guidelines may be inadequate in protecting the health of human populations.

Health effects of living near mobile phone base transceiver station (BTS) antennae: a report from Isfahan, Iran (http://www.ncbi.nlm.nih.gov/pubmed/23781985). Shahbazi-Gahrouei et al, Electromagnetic Biology Medicine, 2013.

- This cross-sectional study found the symptoms of nausea, headache, dizziness, irritability, discomfort, nervousness, depression, sleep disturbance, memory loss and lowering of libido were statistically increased in people living closer than 300 m from cell antennas as compared to those living farther away. The study concludes that "antennas should not be sited closer than 300 m to people to minimize exposure."

Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems. (http://www.ncbi.nlm.nih.gov/pubmed/21716201) Yakymenko (http://www.ncbi.nlm.nih.gov/pubmed?term=Yakymenko%20I%5BAuthor%5D&cauthor=true&cauthor_uid=21716201) (2011) Exp Oncology, 33(2):62-70.

- Even a year of operation of a powerful base transmitting station for mobile communication reportedly resulted in a dramatic increase of cancer incidence among population living nearby.

Association of Exposure to Radio-Frequency Electromagnetic Field Radiation (RF-EMFR) Generated by Mobile Phone Base Stations (MPBS)with Glycated Hemoglobin (HbA1c) and Risk of Type 2 Diabetes Mellitus (https://www.researchgate.net/publication/283726472_Association_of_Exposure_to_Radio-Frequency_Electromagnetic_Field_Radiation_RF-EMFR_Generated_by_Mobile_Phone_Base_Stations_with_Glycated_Hemoglobin_HbA1c_and_Risk_of_Type_2_Diabetes_Mellitus) , Sultan Ayoub Meo et al, International Journal of Environmental Research and Public Health, 2015

- Elementary school students who were exposed to high RF-EMFR generated by MPBS had a significantly higher risk of type 2 diabetes mellitus relative to their counterparts who were exposed to lower RF-EMFR.

How does long term exposure to base stations and mobile phones affect human hormone profiles? (http://www.ncbi.nlm.nih.gov/pubmed/22138021) Eskander EF et al, (2011), Clin Biochem

- RFR exposures significantly impacted ACTH, cortisol, thyroid hormones, prolactin for females, and testosterone levels for males.

Investigation on the health of people living near mobile telephone relay stations: Incidence according to distance and sex (http://www.ncbi.nlm.nih.gov/pubmed/12168254) Santini et al, 2002 , Pathol Bio

- People living near mobile phone masts reported more symptoms of headache, sleep disturbance, discomfort, irritability, depression, memory loss and concentration problems the closer they lived to the installation. Study authors recommend that the minimal distance of people from cellular phone base stations should not be < 300 m.

Navarro EA, Segura J, Portoles M, Gomez-Perretta C, The Microwave Syndrome: A preliminary Study (http://www.emrpolicy.org/science/research/docs/navarro_ebm_2003.pdf). 2003 (Spain) Electromagnetic Biology and Medicine, Volume 22, Issue 2, (2003): 161 – 169

- Statistically significant positive exposure-response associations between RFR intensity and fatigue, irritability, headaches, nausea, loss of appetite, sleeping disorder, depressive tendency, feeling of discomfort, difficulty in concentration, loss of memory, visual disorder, dizziness and cardiovascular problems.

Two Important Animal Studies on Radiofrequency Radiation

These studies indicate that government limits are non protective. Government limits are based on the assumption that radiofrequency radiation is only harmful at thermal levels. However, the cancers developed in animals in these studies at radiation levels that were non thermal.

Belpoggi et al. 2018, "Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz base station environmental emission (https://ehtrust.org/wp-content/uploads/Belpoggi-Heart-and-Brain-Tumors-Base-Station-2018-First-page-.pdf)" Environmental Research Journal

- Researchers with the renowned Ramazzini Institute (RI) in Italy performed a large-scale lifetime study (https://www.sciencedirect.com/science/article/pii/S0013935118300367?via%3Dihub) of lab animals exposed to environmental levels (comparable to allowable limits from cell towers) of RFR radiation and found the rats developed increased cancers- schwannoma of the heart in male rats. This study confirms the $25 million US National Toxicology Program (https://ntp.niehs.nih.gov/about/org/sep/trpanel/meetings/docs/2018/march/index.html) study which used much higher levels of cell phone radiofrequency (RF) radiation, but also reported finding the same unusual cancers as the Ramazzini- schwannoma of the heart in male rats. In addition, the RI study of cell tower radiation also found increases in malignant brain (glial) tumors in female rats and precancerous conditions including Schwann cells hyperplasia in both male and female rats.
- "Our findings of cancerous tumors in rats exposed to environmental levels of RF are consistent with and reinforce the results of the US NTP studies on cell phone radiation, as both reported increases in the same types of tumors of the brain and heart in Sprague-Dawley rats. Together, these studies provide sufficient evidence to call for the International Agency for Research on Cancer (IARC) to re-evaluate and re-classify their conclusions regarding the carcinogenic potential of RFR in humans," said Fiorella Belpoggi PhD, study author and RI Director of Research.
- The Ramazzini study exposed 2448 Sprague-Dawley rats from prenatal life until their natural death to "environmental" cell tower radiation for 19 hours per day (1.8 GHz GSM radiofrequency radiation (RFR) of 5, 25 and 50 V/m). RI exposures mimicked base station emissions like those from cell tower antennas, and exposure levels were far less than those used in the NTP studies of cell phone radiation.
- Watch Press Conference (https://ehtrust.org/worlds-largest-animal-study-on-cell-tower-radiation-confirms-cancer-link/)

Wyde, Michael, et al. "National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats (Whole Body Exposure).Statement on conclusions of the peer review meeting by NIEHS, released after external peer review meeting (https://ntp.niehs.nih.gov/ntp/about_ntp/trpanel/2018/march/actions20180328_508.pdf)and the DNA damage presentation (https://ehtrust.org/wp-content/uploads/Evaluation-of-Genotoxicity-of-Cell-Phone-Radiofrequency-Radiation-in-Male-and-f-the-Genot-d-Female-notoxicity-e-Rats-and-y-Ce-d-Mice-ell-Ra-e-Following-g-Subchronic-ncy-c-Exposure-Poster-.pdf).

- This 25 million dollar study is the most complex study completed by the NTP and the world's largest rodent study on radiofrequency radiation exposure to date which found long term exposure at non thermal levels associated with brain cancer and schwannomas of the heart in male rats. In addition damage to heart was found in all exposure levels. The full report is expected to be released in Fall 2018.

More Important Studies on Cell Tower Radiation

Cindy L. Russell, 5 G wireless telecommunications expansion: Public health and environmental implications (http://www.sciencedirect.com/science/article/pii/S0013935118300161), Environmental Research, 2018, ISSN 0013-9351

- Radiofrequency radiation (RF) is increasingly being recognized as a new form of environmental pollution (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-pollution). This article reviews relevant electromagnetic (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/electromagnetism) frequencies, exposure standards and current scientific literature on the health implications of 2G, 3G, 4G and 5G.
- Effects can also be non-linear. Because this is the first generation to have cradle-to-grave lifespan exposure to this level of man-made microwave (RF EMR) radiofrequencies, it will be years or decades before the true health consequences are known. Precaution in the roll out of this new technology is strongly indicated.

Noa Betzalel, Paul Ben Ishai, Yuri Feldman, The human skin as a sub-THz receiver – Does 5G pose a danger to it or not? (http://www.sciencedirect.com/science/article/pii/S0013935118300331), Environmental Research, Volume 163, 2018, Pages 208-216, ISSN 0013-9351,

- Researchers have developed a unique simulation tool of human skin, taking into account the skin multi-layer structure (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/laminates) together with the helical segment of the sweat duct embedded in it. They found that the presence of the sweat duct led to a high specific absorption rate (SAR) of the skin in extremely high frequency (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/extremely-high-frequencies) band that will be used in 5G. "One must consider the implications of human immersion in the electromagnetic noise, caused by devices working at the very same frequencies as those, to which the sweat duct (as a helical antenna) is most attuned. We are raising a warning flag against the unrestricted use of sub-THz technologies for communication, before the possible consequences for public health are explored."

Mobile phone infrastructure regulation in Europe: Scientific challenges and human rights protection (http://www.sciencedirect.com/science/article/pii/S146290111300186X) Claudia Roda, Susan Perry, Environmental Science & Policy, Volume 37, March 2014, Pages 204-214.

- This article was published in Environmental Science & Policy by human rights experts. It argues that cell tower placement is a human rights issue for children.
- "We argue that (1) because protection of children is a high threshold norm in Human Right law and (2) the binding language of the Convention on the Rights of the Child obliges States Parties to provide a higher standard of protection for children than adults, any widespread or systematic form of environmental pollution that poses a long-term threat to a child's rights to life, development or health may constitute an international human rights violation.
- In particular we have explained how the dearth of legislation to regulate the installation of base stations (cell towers) in close proximity to children's facilities and schools clearly constitutes a human rights concern according to the language of the Convention on the Rights of the Child, a treaty that has been ratified by all European States.

SAFETY ZONE DETERMINATION FOR WIRELESS CELLULAR TOWER (http://ijret.org/Volumes/V02/I09/IJRET_110209029.pdf) Nyakyi et al, Tanzania (2013)

- This research looked at the radiation that cell towers emit and states a safety zone is needed around the towers to ensure safe sleeping areas. The authors state that "respective authorities should ensure that people reside far from the tower by 120m or more depending on the power transmitted to avoid severe health effect."

A cross-sectional case control study on genetic damage in individuals residing in the vicinity of a mobile phone base station. (http://www.ncbi.nlm.nih.gov/pubmed/25006864) Ghandi et al, 2014 (India):

- This cross-sectional case control study on genetic damage in individuals living near cell towers found genetic damage parameters of DNA were significantly elevated. The authors state," The genetic damage evident in the participants of this study needs to be addressed against future disease-risk, which in addition to neurodegenerative disorders, may lead to cancer."

Human disease resulting from exposure to electromagnetic fields (http://www.ncbi.nlm.nih.gov/pubmed/24280284), Carpenter, D. O. Reviews on Environmental Health, Volume 28, Issue 4, Pages 159172.

- This review summarizes the evidence stating that excessive exposure to magnetic fields from power lines and other sources of electric current increases the risk of development of some cancers and neurodegenerative diseases, and that excessive exposure to RF radiation increases risk of cancer, male infertility, and neurobehavioral abnormalities.

Signifikanter Rückgang klinischer Symptome nach Senderabbau – eine Interventionsstudie. (English-Significant Decrease of Clinical Symptoms after Mobile Phone Base Station Removal – An Intervention Study) (http://nebula.wsimg.com/d1e65ba8eb587c44cba6164dfef44ed2?AccessKeyId=045114F8E0676B9465FB&disposition=0&alloworigin=1)Tetsuharu Shinjyo and Akemi Shinjyo, 2014 Umwelt-Medizin-Gesellschaft, 27(4), S. 294-301.

- Japanese study Showed Statistically Significant Adverse Health Effects from electromagnetic radiation from mobile phone base stations. Residents of a condominium building that had cell tower antennas on the rooftop were examined before and after cell tower antennas were removed. In 1998, 800MHz cell antennas were installed, then later in 2008 a second set of antennas (2GHz) were installed. Medical exams and interviews were conducted before and after the antennas were removed in 2009 on 107 residents of the building who had no prior knowledge about possible. These results lead researchers to question the construction of mobile phone base stations on top of buildings such as condominiums or houses.

Effect of GSTM1 and GSTT1 Polymorphisms on Genetic Damage in Humans Populations Exposed to Radiation From Mobile Towers. (http://1.usa.gov/1hlQmoj)Gulati S, Yadav A, Kumar N, Kanupriya, Aggarwal NK, Kumar R, Gupta R., Arch Environ Contam Toxicol. 2015 Aug 5. [Epub ahead of print]

- In our study, 116 persons exposed to radiation from mobile towers and 106 control subjects were genotyped for polymorphisms in the GSTM1 and GSTT1 genes by multiplex polymerase chain reaction method. DNA damage in peripheral blood lymphocytes was determined using alkaline comet assay in terms of tail moment (TM) value and micronucleus assay in buccal cells (BMN). Our results indicated that TM value and BMN frequency were higher in an exposed population compared with a control group and the difference is significant. In our study, we found that different health symptoms, such as depression, memory status, insomnia, and hair loss, were significantly associated with exposure to EMR. Damaging effects of nonionizing radiation result from the generation of reactive oxygen species (ROS) and subsequent radical formation and from direct damage to cellular macromolecules including DNA.

Subjective symptoms, sleeping problems, and cognitive performance in subjects living near mobile phone base stations (http://www.ncbi.nlm.nih.gov/pubmed/16621850), Hutter HP et al, (May 2006), Occup Environ Med. 2006 May;63(5):307-13

- Found a significant relationship between some cognitive symptoms and measured power density in 365 subjects; highest for headaches. Perceptual speed increased, while accuracy decreased insignificantly with increasing exposure levels.

Oberfeld, A.E. Navarro, M. Portoles, C. Maestu, C. Gomez-Perretta, The microwave syndrome: further aspects of a Spanish study (http://www.powerwatch.org.uk/pdfs/20040809_kos.pdf),

- A health survey was carried out in La Ñora, Murcia, Spain, in the vicinity of two GSM 900/1800 MHz cellular phone base stations. The adjusted (sex, age, distance) logistic regression model showed statistically significant positive exposure-response associations between the E-field and the following variables: fatigue, irritability, headaches, nausea, loss of appetite, sleeping disorder, depressive tendency, feeling of discomfort, difficulty in concentration, loss of memory, visual disorder, dizziness and cardiovascular problems.

Bortkiewicz et al, 2004 (Poland), Subjective symptoms reported by people living in the vicinity of cellular phone base stations: review, (http://www.ncbi.nlm.nih.gov/pubmed/15620045)Med Pr. (http://www.ncbi.nlm.nih.gov/pubmed/15620045#)2004;55(4):345-51. (http://www.ncbi.nlm.nih.gov/pubmed/15620045)

- Residents close to mobile phone masts reported: more incidences of circulatory problems, sleep disturbances, irritability, depression, blurred vision and concentration difficulties the nearer they lived to the mast.
- The performed studies showed the relationship between the incidence of individual symptoms, the level of exposure, and the distance between a residential area and a base station.

Wolf R and Wolf D, Increased Incidence of Cancer Near a Cell-phone Transmitter Station (http://www.powerwatch.org.uk/news/20050207_israel.pdf), International Journal of Cancer Prevention, (Israel) VOLUME 1, NUMBER 2, APRIL 2004

- A significant higher rate of cancer (300% increase) among all residents living within 300m radius of a mobile phone mast for between three and seven years was detected.
- 900% cancer increase among women alone
- In the area of exposure (area A) eight cases of different kinds of cancer were diagnosed in a period of only one year. This rate of cancers was compared both with the rate of 31 cases per 10,000 per year in the general population and the 2/1222 rate recorded in the nearby clinic (area B). The study indicates an association between increased incidence of cancer and living in proximity to a cell-phone transmitter station.

Changes of Neurochemically Important Transmitters under the influence of modulated RF fields – A Long Term Study under Real Life Conditions (http://apps.fcc.gov/ecfs/document/view?id=7521095891)(Germany), Bucher and Eger, 2011

- German study showing elevated levels of stress hormones (adrenaline, noradrenaline), and lowered dopamine and PEA levels in urine in area residents during 1st 6 months of cell tower installation. Even after 1.5 years, the levels did not return to normal.

The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer (http://www.tetrawatch.net/papers/naila.pdf) (Umwelt·Medizin·Gesellschaft 17,4 2004) Eger et al, 2004 (Germany) (http://apps.who.int/peh-emf/research/database/emfstudies/viewstudy.cfm?ID=1226)

- 200% increase in the incidence of malignant tumors was found after five years' exposure in people living within 400m radius of a mobile phone mast. The proportion of newly developing cancer cases is significantly higher among patients who live within 400 meters of a cell phone transmitter. Early age of cancer diagnosis.

Microwave electromagnetic fields act by activating voltage-gated calcium channels: why the current international safety standards do not predict biological hazard. (http://bit.ly/1nQjboA) Martin L. Pall. Recent Res. Devel. Mol. Cell Biol. 7(2014).

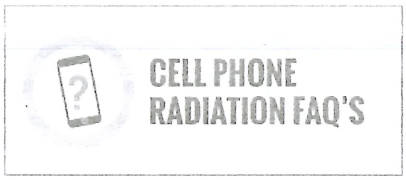
- "It can be seen from the above that 10 different well-documented microwave EMF effects can be easily explained as being a consequence of EMF VGCC activation: oxidative stress, elevated single and double strand breaks in DNA, therapeutic responses to such EMFs, breakdown of the blood-brain barrier, cancer, melatonin loss, sleep dysfunction, male infertility and female infertility."

Pall ML. 2015. Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. (http://electromagnetichealth.org/wp-content/uploads/2015/05/reveh-2015.pdf)J. Chem. Neuroanat. 2015 Aug 20.

- Non-thermal microwave/lower frequency electromagnetic fields (EMFs) act via voltage-gated calcium channel (VGCC) activation.
- Two U.S. government reports from the 1970s to 1980s provide evidence for many neuropsychiatric effects of non-thermal microwave EMFs, based on occupational exposure studies. 18 more recent epidemiological studies, provide substantial evidence that microwave EMFs from cell/mobile phone base stations, excessive cell/mobile phone usage and from wireless smart meters can each produce similar patterns of neuropsychiatric effects, with several of these studies showing clear dose–response relationships.
- Lesser evidence from 6 additional studies suggests that short wave, radio station, occupational and digital TV antenna exposures may produce similar neuropsychiatric effects. Among the more commonly reported changes are sleep disturbance/insomnia, headache, depression/depressive symptoms, fatigue/tiredness, dysesthesia, concentration/attention dysfunction, memory changes, dizziness, irritability, loss of appetite/body weight, restlessness/anxiety, nausea, skin burning/tingling/dermographism and EEG changes. In summary, then, the mechanism of action of microwave EMFs, the role of the VGCCs in the brain, the impact of non-thermal EMFs on the brain, extensive epidemiological studies performed over the past 50 years, and five criteria testing for causality, all collectively show that various non-thermal microwave EMF exposures produce diverse neuropsychiatric effects.

This webpage only has a sampling of research on this issue. There is research going back decades on this issue. More can be found here. (https://ehtrust.org/science/research-on-wireless-health-effects/)

(https://ehtrust.org/key-issues/fine-print-warnings/)



(https://ehtrust.org/take-action/educate-yourself/cell-phones-and-wireless-radiation-faqs/)

(https://ehtrust.org/key-issues/wifi-in-schools/)

Scientists warn of potential serious health effects of 5G

September 13, 2017

We the undersigned, more than 180 scientists and doctors from 35 countries, recommend a moratorium on the roll-out of the fifth generation, 5G, for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from industry. 5G will substantially increase exposure to radiofrequency electromagnetic fields (RF-EMF) on top of the 2G, 3G, 4G, Wi-Fi, etc. for telecommunications already in place. RF-EMF has been proven to be harmful for humans and the environment.

(Note: Blue links below are references.)

5G leads to massive increase of mandatory exposure to wireless radiation

5G technology is effective only over short distance. It is poorly transmitted through solid material. Many new antennas will be required and full-scale implementation will result in antennas every 10 to 12 houses in urban areas, **thus massively increasing mandatory exposure.**

With "the ever more extensive use of wireless technologies," nobody can avoid to be exposed. Because on top of the increased number of 5G-transmitters (even within housing, shops and in hospitals) according to estimates, "10 to 20 billion connections" (to refrigerators, washing machines, surveillance cameras, self-driving cars and buses, etc.) will be parts of the Internet of Things. All these together can cause a substantial increase in the total, long term RF-EMF exposure to all EU citizens.

Harmful effects of RF-EMF exposure are already proven

More than 230 scientists from 41 countries have expressed their "serious concerns" regarding the ubiquitous and increasing exposure to EMF generated by electric and wireless devices already before the additional 5G roll-out. They refer to the fact that "numerous recent scientific publications have shown that *EMF affects living organisms at levels well below most international and national guidelines*". Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plants and animals.

After the scientists' appeal was written in 2015 additional research has convincingly confirmed serious health risks from RF-EMF fields from wireless technology. The world's largest study (25 million US dollar) National Toxicology Program (NTP), shows statistically significant increase in the incidence of *brain and heart cancer* in animals exposed to EMF below the ICNIRP (International Commission on Non-Ionizing Radiation Protection) guidelines followed by most countries. These results support results in human epidemiological studies on RF radiation and brain tumour risk. A large number of peer-reviewed scientific reports demonstrate harm to human health from EMFs.

The International Agency for Research on Cancer (IARC), the cancer agency of the World Health Organization (WHO), in 2011 concluded that EMFs of frequencies 30 KHz – 300 GHz are possibly carcinogenic to humans (Group 2B). However, new studies like the NTP study mentioned above and several epidemiological investigations including the latest studies on mobile phone use and brain cancer risks confirm that RF-EMF radiation is carcinogenic to humans.

The EUROPA EM-EMF Guideline 2016 states that "there is strong evidence that *long-term exposure to certain EMFs is a risk factor for diseases* such as certain cancers, Alzheimer's disease, and male infertility…Common EHS (electromagnetic hypersensitivity) symptoms include headaches, concentration difficulties, sleep problems, depression, lack of energy, fatigue, and flu-like symptoms."

An increasing part of the European population is affected by ill health symptoms that have for many years been linked to exposure to EMF and wireless radiation in the scientific literature. The International Scientific Declaration on EHS & multiple chemical sensitivity (MCS), Brussels 2015, declares that: "In view of our present scientific knowledge, we thereby stress all national and international bodies and institutions...to recognize EHS and MCS as true medical conditions which acting as sentinel diseases may create a *major public health concern in years to come worldwide* i.e. in all the countries implementing unrestricted use of electromagnetic field-based wireless technologies and marketed chemical substances… ***Inaction is a cost to society*** and is not an option anymore… we unanimously acknowledge this serious hazard to public health…that major primary *prevention measures are adopted and prioritized, to face this* ***worldwide pan-epidemic*** *in perspective.*"

Precautions

The **Precautionary Principle** (UNESCO) was adopted by EU 2005: ”*When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain,* actions shall be taken to *avoid or diminish that harm.*”

Resolution 1815 (Council of Europe, 2011): ”*Take all reasonable measures to reduce exposure to electromagnetic fields,* especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours…Assembly strongly recommends that the ALARA (as low as reasonably achievable) principle is applied, covering both the so-called thermal effects and the athermic [non-thermal] or biological effects of electromagnetic emissions or radiation” and to ”improve risk-assessment standards and quality”.

The **Nuremberg code** (1949) applies to all experiments on humans, thus including the roll-out of 5G with new, higher RF-EMF exposure. All such experiments: ”should be based on previous knowledge (e.g., an expectation derived from animal experiments) that justifies the experiment. No experiment should be conducted, *where there is an a priori reason to believe that death or disabling injury will occur*; except, perhaps, in those experiments where the experimental physicians also serve as subjects.” (Nuremberg code pts 3-5). Already published scientific studies show that there is ”a priori reason to believe” in real health hazards.

The **European Environment Agency** (EEA) is warning for ”Radiation risk from everyday devices" in spite of the radiation being below the WHO/ICNIRP standards. EEA also concludes: ”There are many examples of the failure to use the precautionary principle in the past, which have *resulted in serious and often irreversible damage to health and environments*…harmful exposures can be widespread before there is both 'convincing' evidence of harm from long-term exposures, and biological understanding [mechanism] of how that harm is caused.”

“Safety guidelines” protect industry – not health

The current ICNIRP ”safety guidelines” are obsolete. All proofs of harm mentioned above arise although the radiation is below the ICNIRP "safety guidelines". Therefore new safety standards are necessary. The reason for the misleading guidelines is that “conflict of interest of ICNIRP members due to their *relationships with telecommunications or electric companies* undermine the impartiality that should govern the regulation of Public Exposure Standards for non-ionizing radiation…To evaluate cancer risks it is necessary to include scientists with competence in medicine, especially oncology.”

The current ICNIRP/WHO guidelines for EMF are based on the obsolete hypothesis that ”The critical effect of RF-EMF exposure relevant to human health and safety is heating of exposed tissue.” However, scientists have proven that many different kinds of *illnesses and harms are* caused without heating (”non-thermal effect”) at radiation levels well below ICNIRP guidelines.

We urge the EU:

1) To take all reasonable measures to halt the 5G RF-EMF expansion until independent scientists can assure that 5G and the total radiation levels caused by RF-EMF (5G together with 2G, 3G, 4G, and WiFi) will not be harmful for EU-citizens, especially infants, children and pregnant women, as well as the environment.

2) To recommend that all EU countries, especially their radiation safety agencies, follow Resolution 1815 and inform citizens, including, teachers and physicians, about health risks from RF-EMF radiation, how and why to avoid wireless communication, particularly in/near e.g., daycare centers, schools, homes, workplaces, hospitals and elderly care.

3) To appoint immediately, without industry influence, an EU task force of independent, truly impartial EMF-and-health scientists with no conflicts of interest[1] to re-evaluate the health risks and:

a) To decide about new, safe "maximum total exposure standards" for all wireless communication within EU.

b) To study the total and cumulative exposure affecting EU-citizens.

c) To create rules that will be prescribed/enforced within the EU about how to avoid exposure exceeding new EU "maximum total exposure standards" concerning all kinds of EMFs in order to protect citizens, especially infants, children and pregnant women.

4) To prevent the wireless/telecom industry through its lobbying organizations from persuading EU-officials to make decisions about further propagation of RF radiation including 5G in Europe.

5) To favor and implement wired digital telecommunication instead of wireless.

We expect an answer from you no later than **October 31, 2017** to the two first mentioned signatories about what measures you will take to protect the EU-inhabitants against RF-EMF and especially 5G radiation. This appeal and your response will be publicly available.

Respectfully submitted,

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WE will add signatories to the following list through the end of 2017. The updated list of signatories and the appeal can be found later HERE.

[1] Avoid similar mistakes as when the Commission (2008/721/EC) appointed industry supportive members for SCENIHR, who submitted to EU a misleading SCENIHR report on health risks, giving telecom industry a clean bill to irradiate EU-citizens. The report is now quoted by radiation safety agencies in EU.

Signatories to the 5G Appeal
(As of September 13, 2017)

Note: The endorsements are personal and not necessarily supported by the affiliated universities or organizations.

EU and European Nations

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fax

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February 26, 2019

Kitsap County Planning Commission
619 Division Street
Port Orchard, WA

Re: Wireless Communication Facility Update

On behalf of T-Mobile, we are submitting these written comments on the proposed Wireless Communications Facility code update. We appreciate the opportunity to comment on these proposed changes.

Regarding any wireless facility code update, T-Mobile has general concerns that (a) the code allow reasonable opportunities to site macro facilities to ensure that primary coverage meeting customer needs is able to be provided to all areas; (b) that facility upgrades that qualify for treatment as Eligible Facilities requests are expeditiously identified and allowed as required by federal law; (c) that a clear path for locating Small Wireless Facilities (small cells) in the public right of way on existing electrical utility poles and City street lights is made available, and that the process requirements and timeframes for approval of small cell applications are compliant with federal law, including the recent FCC September 2018 Order; and (d) that federal shot clocks for timely processing of wireless facility applications will be met.

The proposed draft Kitsap County ordinance appears to be broadly aimed at covering these areas of concern. However, with respect to the details of the provisions, there are numerous concerns, as outlined below. We urge the County to revise the ordinance to address these areas of concern before moving the ordinance forward in the process.

17.530.010(A)(6): *Change "require" to "encourage"*: "Encourage stealth technology". The practical and technical feasibility of employing stealth technology varies depending on the type of support structure and on the type of antennas and equipment required for a particular location.

17.530.010(B)(1): *Change "identical dimensions" to "substantially similar dimensions":* "Maintenance or replacement of the existing related equipment with new related equipment that has substantially similar dimensions and appearance…." Manufacturing is not exact or perfect. Minor variations in dimensions and appearance of replacement equipment should not cause loss of the exemption.

17.530.010(C)(1): *Delete subsection c, which prohibits a wireless facility of any type from being constructed "where the visual impacts analysis required by Section 17.530.040(B) concludes that more than a moderate visual impact will occur and cannot be mitigated."* The visual analysis process required in 17.530.040(B) is overly stringent and likely to result in the effective prohibition of wireless service as set forth in the FCC's September 2018 Order, federal statutes and case law. Prohibiting the placement of wireless facilities based on unavoidable visual impacts violates the FCC's directive that aesthetic regulations must be "reasonable" and "objective" and "no more burdensome than those applied to other types of infrastructure deployments" (FCC September 2018 Order ("Order") ¶¶86-87), and the FCC's conclusion that "a legal requirement can 'materially inhibit' the provision of services even if it is not an insurmountable barrier" (Order, ¶35). It is not possible in every case to make a wireless facility invisible, or unseen, and there are a variety of circumstances where, for technical reasons related to the effective propagation of wireless signals to achieve coverage and capacity network improvement goals, it will not be possible to reduce or eliminate visual impacts below some subjective standard of "more than moderate" impact. Such standards are inherently subjective, and not compliant with the FCC's directive that aesthetic regulations must be "reasonable" and "objective". Wireline infrastructure such as electrical and cable service infrastructure are not subjected to such stringent prohibitions, and thus it is not legally permissible to subject wireless infrastructure to these prohibitions.

17.530.010(C)(2): *Delete subsection (b), which prohibits "tower-based" wireless facilities in areas with underground utilities.* Network coverage and capacity needs may arise anywhere, including in areas with underground utilities. In instances where suitable support structures such as existing wireless towers, buildings or water tanks do not exist, the only way to resolve network service deficiencies may be through the construction of a stand-alone small wireless facility or through the construction of a new self-supporting macro wireless support structure such as a stealth canister or monopole style facility. A blanket prohibition on these solutions for service deficiencies will have the effect of prohibiting wireless service, in violation of federal law.

17.530.030: The terms "non-tower" and "tower-based" in this section on "Permitting" as used to modify the word "facility" are central to administering the permit system. These terms are awkward, and if used should be further clarified in the Definitions Chapter 17.110 to make explicit that a small wireless facility ("SWF") is not either a "tower-based" or a "non-tower" facility. Consider further clarifying 17.530.030 by structuring this "permitting" section to prescribe specific approval paths for SWFs separate from the permit paths for other types of wireless facilities.

17.530.030(C)(1): *Delete second sentence, which requires compliance with additional land use standards in 17.530.040.* Requiring compliance with additional land use standards for a proposal that is not a substantial change and is therefore governed by the 6409 provisions of

federal law does not comply with federal law. Exempting facilities that qualify for 6409 for some, but not all, provisions of the general development standards is not sufficient to comply with federal law.

17.530.030(D)(8): *Delete or modify subsection (8) of the ACUP application requirements, which appears to require submittal of fully executed leases and easements for a site at the land use permit application stage.* This should not be required at the ACUP application submittal stage. Because this is a discretionary permit, as a business practice, wireless providers typically do not sign a lease or accompanying easements until it is known with certainty whether a permit will be granted. At most, an option agreement may be entered into. In either case, the proprietary terms of a provider's contractual agreement with a private party do not belong in the public record, particularly at the permit application stage. At a minimum, this requirement should be converted to requesting a memorandum of such an agreement to be a condition of issuance of any ACUP, and not required to be submitted until the building permit stage.

17.530.030(D)(9): *Delete or modify subsection (9) of the ACUP application requirements, which appears to require a build to suit structure provider to submit fully executed agreements with its sublessee wireless provider customers at the land use permit application stage.* This is burdensome and contrary to best business practice for some of the same reasons as set forth immediately above. If a build to suit provider is constructing a facility, a wireless service provider may enter into some form of conceptual agreement to locate on the structure if and when actually permitted and actually constructed, however, once again to require this to be fully executed and submitted into the public record at the land use permit application stage is not appropriate or practical. At a minimum, this requirement should be converted to requesting a memorandum of such an agreement to be a condition of any ACUP, and submitted at the building permit stage.

17.530.030(E)(3): *Delete subsections (a)-(c), which require information about "adjustments" and declare certain criteria that are effectively permit decision criteria, all of which are non-compliant with federal law.* The first sentence of this section requires submittal of a propagation study showing wireless coverage or capacity for an application that requires a CUP, i.e., applications for macro facilities. The remainder of the section describes certain types of details required in the study, and declares certain criteria for approval or disapproval (see b-c). The term "adjustment" is used several times; this is not a defined term. It appears to be referring to potential alternative sites to the proposed site. Certain information about coverage gaps or service gaps is required, and in certain circumstances, this section appears to be declaring that the proposed site will not be approved if certain determinations are made by the County as to what alternative sites may be deemed to cover or serve. Standards that are set with reference to service "gaps" or site alternatives are based on case law from certain federal court circuits, for example the Ninth Circuit. The FCC Order is very clear that these standards are rejected and are

not standards that properly reflect the meaning of an "effective prohibition of service" under applicable federal statutes. Order ¶¶34-37, ¶¶40-42.

17.530.040(B)(1)-(2): *Delete subsections (1) and (2).* These sections outline a highly detailed, excessive and overly burdensome "visual impact analysis" requirement, and declare that any facility with "more than a moderate impact" within a one-mile radius be deemed not "aesthetically compatible", a determination that results in denial of a permit in violation of federal law, see comments above on 17.530.010(C)(1). These provisions appear to be required for all wireless facilities, including SWFs. The one-mile radius requirement is too wide, the requirements to perform a crane or balloon test, and to employ simulation or analysis methods that identify topography within a one-mile radius (which essentially will require the use of LIDAR for every site) are not "reasonable" as required by the FCC Order. They are unnecessary and impractical for almost all sites. These are standards that would make sense only for the most highly intrusive macro sites or sites like radio broadcast towers. These are not reasonable or appropriate standards for SWFs and are not reasonable or appropriate for most other types of wireless facilities. They are not compatible with applicable federal law (see discussion above, *supra*) and should be deleted.

17.530.040(E): *Ensure that regulations governing design, size and placement of antennas and equipment allow standard types of facilities employed by all major wireless providers, and do not dictate the choice of equipment to the provider. Expressly allow T-Mobile "unified enclosure" SWF.* Each wireless provider has its own SWF designs, optimized for its individual network. The current provisions should be sufficiently flexible to allow for these technical variations. Photographs and photo simulations of T-Mobile's "unified enclosure" design on a variety of poles are attached. This design should be expressly allowed.

17.530.050: *Eliminate inconsistencies and excessively restrictive provisions.* Subsection 1 of this section allows SWFs to locate on either an existing pole or another existing structure. Subsection 2(a) establishes a maximum height above a roof surface, but does not allow any height adjustment above the zone height for attachment to an existing pole—situations where the pole is taller than the zone height, for example, an electrical utility pole, are not addressed or allowed. The standard that "no visual impacts" can occur is excessive and overly stringent, and does not comply with federal law, see previous discussion of this issue above.

17.530.060: *Delete or modify subsections 1, 2, 7 and 8.* Subsection 1(a) of this provision governing "tower-based" facilities prohibits such facilities unless the location is the only location that fills a coverage gap. This is a standard that does not comply with the FCC Order, as discussed above (in fact, it does not even comply with 9th Circuit case law, because it demands that the location be the "only" location that fills a gap). Subsection 1(b) requires elimination of all colocation options within a one-mile radius before a new facility can exceed 40 feet in height. A macro facility search area radius may be less than one mile, depending on the topography and

tree cover in an area, thus this provision inherently risks an effective prohibition of service. Subsection 2 again requires demonstration of a coverage gap and that the proposed location be "the only viable location"; this does not comply with federal law, including the FCC Order, as previously explained. The screening requirements of subsection 7 may be impractical or infeasible depending on the circumstances; a provision allowing waiver or deviation at the discretion of the permit decision maker should be added. The limitation to 40' in height for ROW facilities in subsection 8 may result in an effective prohibition of service for any facility other than a SWF.

17.110 – Definitions. *Expressly state that a "tower" does not include a SWF. See previous comments regarding "non-tower" and "tower based".*

Once again, thank you for the opportunity to comment on the proposed ordinance.

Very truly yours,

Davis Wright Tremaine LLP

Linda White Atkins

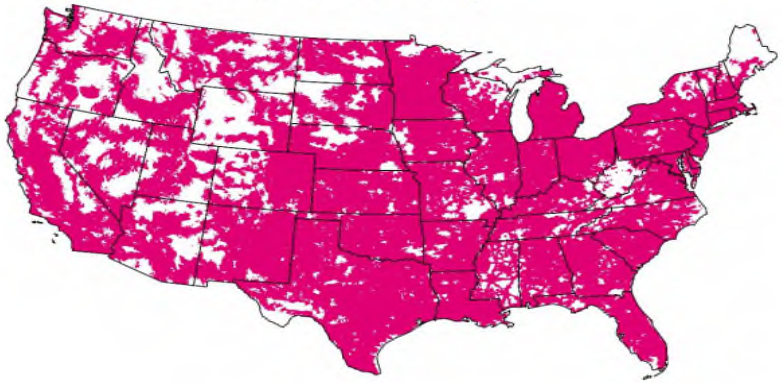

T··Mobile·
Small Cells

T-Mobile as a Company

T-Mobile
NATIONAL DEVELOPMENT

72.6 million	50,000+	19	1,500	1,300
Total customers as of Q4 2017	employees nationwide (5,000+ in Seattle metro)	straight quarters 1 million plus net customer additions	new T-Mobile branded stores in 2017	new MetroPCS branded stores in 2017

T-Mobile Coverage Map
(as of December 31, 2017)



322 million LTE POPs

Wireless Infrastructure is Critical

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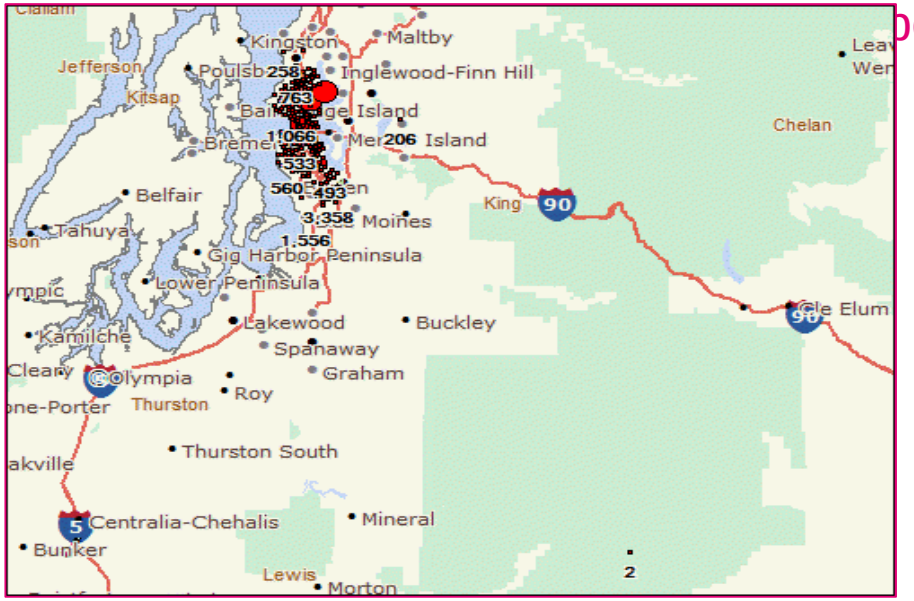
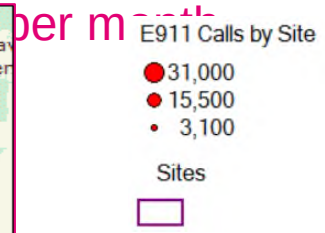
- > 50% of households wireless only
- 70% of phone calls are initiated from a mobile phone
- 80% of adults use smartphones
- 70% of time spent on digital media is on a mobile device
- YOY growth in data usage is at least 1.5 X

King County E911 Calls

T · ·Mobile·
NATIONAL DEVELOPMENT

273,539 calls to T-Mobile's Network (2017-2018)





Preparing for the Future

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- Network requirements to meet these demands
  - COVERAGE – Rural, Suburban & Urban
  - SPECTRUM – Foundation of a wireless network
  - CAPACITY – Constant upgrading of technologies, software, hardware, & infrastructure
  - DENSIFICATION – Essential for 4G and 5G
- Local siting policies should consider
  - ACCESS – particularly in the right of way
  - FLEXIBILITY – allow for different types of designs by each carrier and future innovation
  - STREAMLINING PROCESSES – by exempting small cells from zoning review
  - TIMEFRAMES – provide predictable and timely permitting
  - FEES – require reasonable and non-discriminatory fees

T-Mobile's Small Cell Shroud

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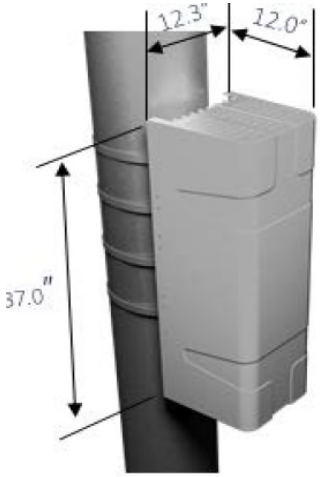
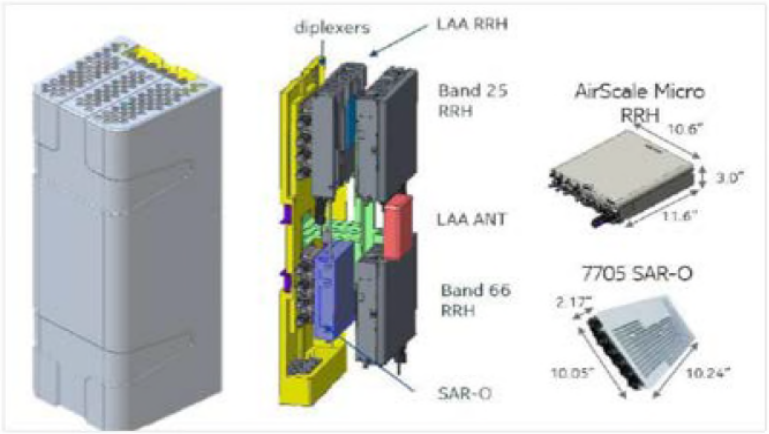
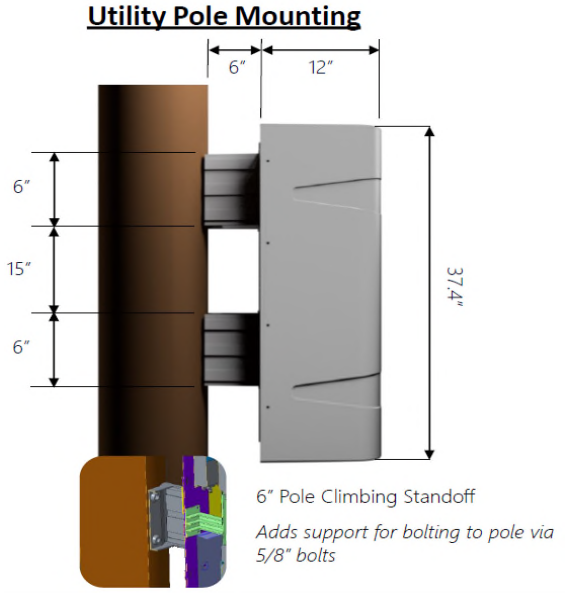






- Sleek design
- Creates uniformity
- Antennas and radios in close proximity for improved function (faster data speeds)
- Can blend with existing infrastructure

Las Vegas Installation

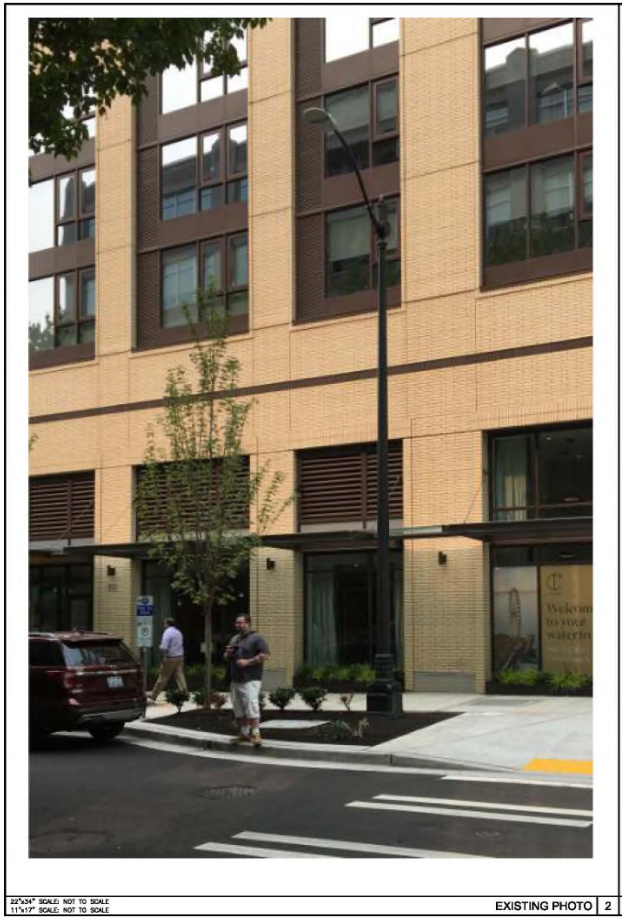
T · ·Mobile·
NATIONAL DEVELOPMENT

Seattle Photo Sims

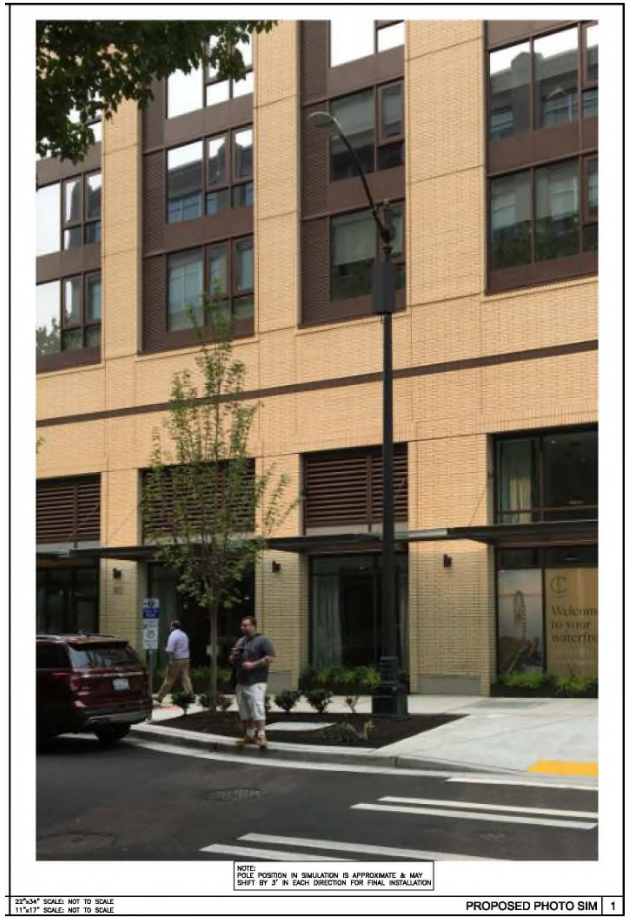
(Proposed)

T··Mobile·
NATIONAL DEVELOPMENT

Existing



Proposed

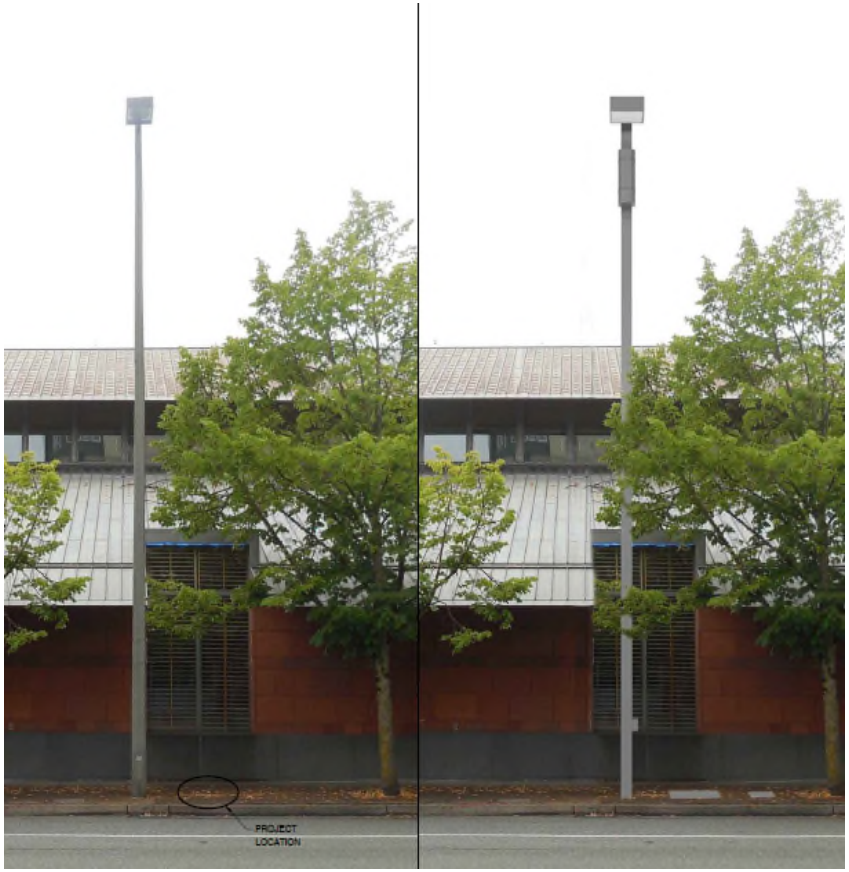


Bellevue Photo Sims

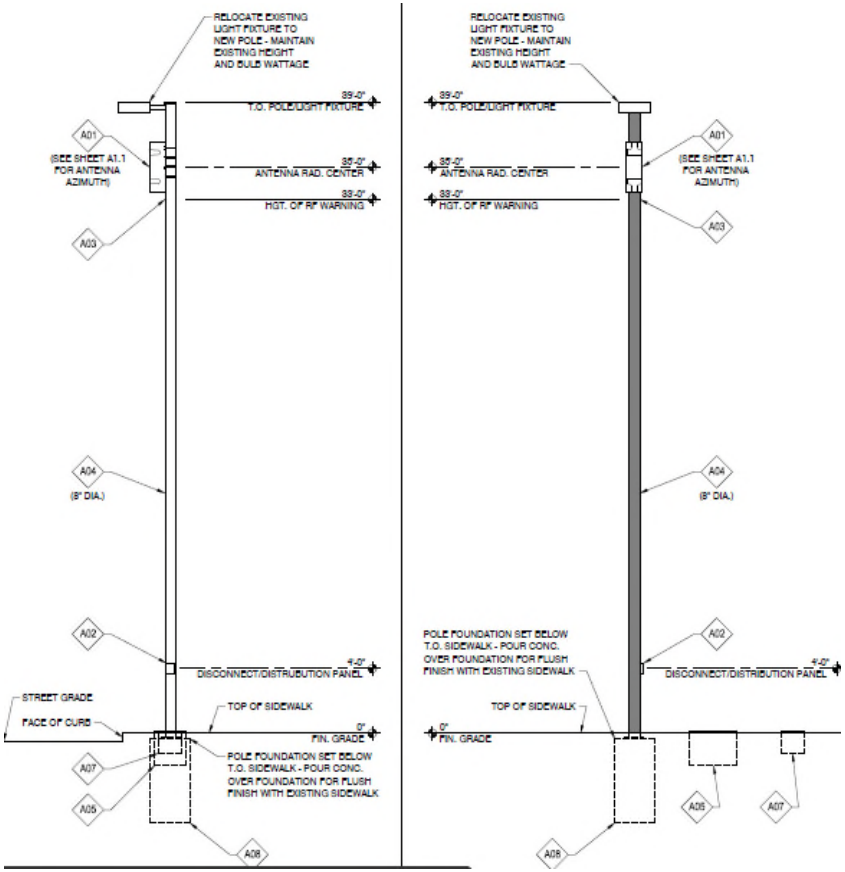
(Proposed)

T-Mobile
NATIONAL DEVELOPMENT

Existing



Proposed



Issaquah Concept Design Example

T · ·Mobile·
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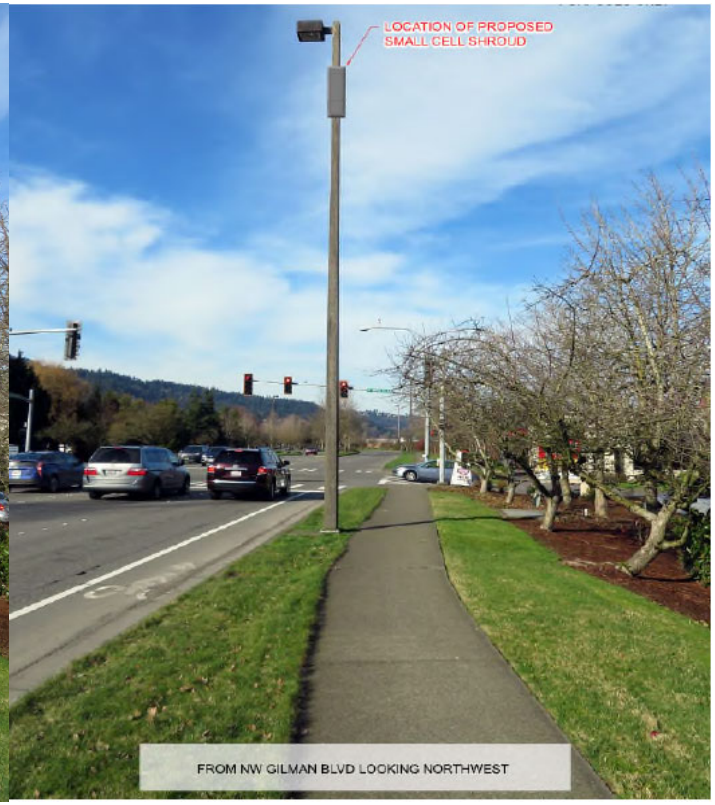
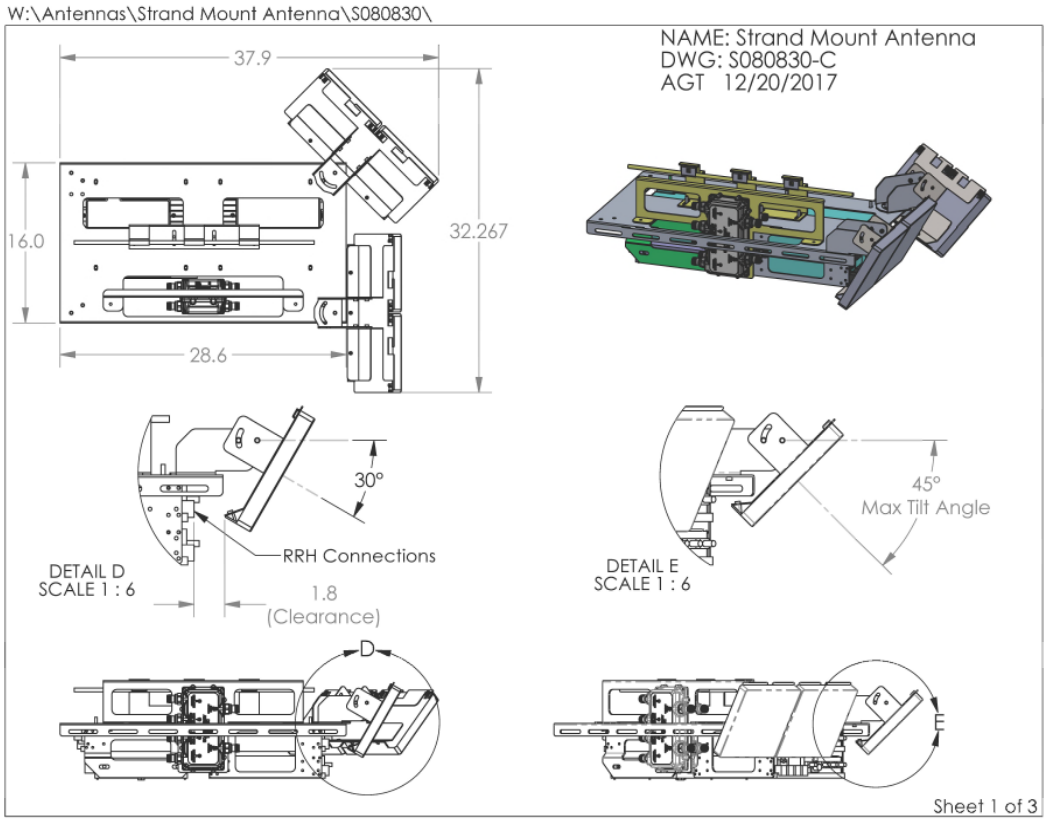
Issaquah Concept Design Example

T··Mobile·
NATIONAL DEVELOPMENT



T-Mobile's Strand-Mount Solution

T-Mobile NATIONAL DEVELOPMENT



Salt Lake City Installation

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Doug Rauh's comments as of 2019 02 04.
COBI should prepare for 5G while improving 4G cell service on the Island by using small cells on light poles. This could be a way to increase revenue from the cellular business while improving service.

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https://www.bellevuereporter.com/news/bellevue-pushes-forward-small-cells-despite-fcc-limitations/

A rendering of Verizon's light pole small cell implementation designs for the city of Kirkland.
Courtesy of the city of Kirkland

Bellevue pushes forward small cells despite FCC limitations

The master licensing agreement leaves space to increase rent if the FCC order is overturned.

- by Kailan Manandic Monday, February 4, 2019 6:30am

The city of Bellevue, in collaboration with the Bellevue Chamber of Commerce and several wireless service providers, has paved the way for **small cell** and 5G **technology within the city.**

The city council approved a master licensing agreement for small cell implementation on Jan. 22, despite a Federal Communications Commission (FCC) order approved last September limiting the city's control over small cell design approval and **annual rent.**

Small cells are smaller cell phone antennas, designed to **fit on utility poles** or **light posts** and fill in the gaps left between the larger cell towers. They currently **support 4G** or **LTE networks** and

will eventually support **5G** networks as the technology develops.

"We are thankful to city leaders for recognizing the importance of our efforts on behalf of a critical business sector," said Josh Marti, Bellevue Chamber of Commerce board chair. **"It is critical that government and the business community work together to ensure future economic growth and prosperity.**
When the chamber and the businesses we represent collaborate with the city, the sky is the limit."

The FCC order, effective Jan. 14, specifically limits the **annual rent per pole to $270** and restricts the permit review time frame to 60 days for existing structures and 90 days for new structures. The order also defines the antenna size limitations without limiting the number of antennas allowed per pole.

The city would have alternatively rented poles at a market price of **$1,500 annually** and had 150 days to review permits. Bellevue recently joined a coalition of cities attempting to get the order overturned and included contingencies in the master licensing agreement allowing the city to increase the rent should the order be invalidated.

City council members proclaimed their disappointment in the lack of local control imposed by the FCC but emphasized their support for small cell implementation within Bellevue.

"Bellevue values collaboration, technology and innovation," Mayor John Chelminiak said. "We see this as another crucial step towards becoming a smarter, high-tech city of the future. The adopted agreement lays the groundwork for delivering the next wave of wireless technology to our community."

City staff expect wireless service providers to begin implementing small cell antennas in downtown Bellevue immediately and later on in other areas. **Small cells can be particularly useful downtown and in suburban neighborhoods where there's no room for the larger antennas or cell towers.**

Efforts to overturn
Nine Energy and Commerce Committee Democrats voiced concerns before the order was approved, stating the order would delay small cell implementation by limiting cities and municipalities.

Currently, two U.S. representatives, Energy and Commerce Committee chairman Frank Pallone, Jr. (D-NJ) and Communications and Technology Subcommittee chairman Mike Doyle (D-PA), are investigating the FCC to determine if some employees coordinated with licensees to challenge the order in different courts and avoid a case within the Ninth Circuit Court of Appeals.

That would put the FCC in a better position against efforts from Bellevue and the other cities attempting to overturn the order with challenges filed in the Ninth Circuit.

"It has come to our attention that certain individuals at the FCC may have urged companies to challenge the order the commission adopted in order to game the judicial lottery procedure and intimated the agency would look unfavorably towards entities that were not helpful," Pallone and Doyle wrote to FCC chairman Ajit Pai on Jan. 24. "If true, it would be inappropriate for the FCC to leverage its power as a regulator to influence regulated companies to further its agenda in seeking a more friendly court."

As of Jan. 24, four FCC licensees have separately petitioned federal review of the order in separate court circuits.