

**July 2008**  
**KANY(FM) Channel 229C0**  
**Montesano, Washington**  
**Section 307(b) Analysis Engineering**

**Hybrid Application and Rulemaking Filing**

The instant application is being filed as a part of a hybrid application and rulemaking proposal comprised of the following elements:

- 1) This Form 301 minor change application is being filed to upgrade KANY from Channel 229C3 at Ocean Shores, Washington to Channel 229C0 at Montesano, Washington;
- 2) In order to accommodate the KANY upgrade, it is proposed in a petition for rulemaking to substitute Channel 271A for vacant Channel 229A at Port Angeles, Washington;
- 3) In order to accommodate the channel substitution at Port Angeles, and to ensure the continuation of local service at Ocean Shores, a Form 301 minor change application is being filed to modify KSWW from Channel 271C2 at Montesano, Washington, to Channel 271C3 at Ocean Shores, Washington.

Unless otherwise noted, all population numbers are from the 2000 Census.

**Spacing Study**

The attached spacing study shows that the proposed Montesano 229C0 allotment site meets the domestic co-channel and adjacent channel spacing requirements for Class C0 stations as prescribed in §73.207 of the Commission's Rules, with the exception of a short-spacing to vacant Channel 229A at Port Angeles. The Port Angeles allotment is simultaneously proposed to be changed to Channel 271A.<sup>1</sup>

The spacing study also demonstrates that this proposal is mutually-exclusive with the existing license for KANY on Channel 229C3 at Ocean Shores.

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<sup>1</sup> A short-spacing with LPFM station KGHZ-LP 232L1 Aberdeen is not believed to be relevant. KGHZ-LP operates on a third-adjacent channel to KANY, and already causes a small amount of 40 dB D/U overlap inside the KANY 70 dBu contour. That overlap, however, does not occur within the city of Montesano.

Short-spacings to one Canadian station and one vacant Canadian allotment are discussed below.

### **CJJR-FM Channel 229C at Vancouver, BC**

The proposed allotment site is short-spaced to Canadian station CJJR-FM, which operates on Channel 229C at Vancouver, British Columbia. Under the terms of the Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels Under the Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service, as amended in 1997 ("Working Arrangement"), the required co-channel Class C<sup>2</sup> to Class C spacing is 306 kilometers, whereas the distance between the proposed allotment site and the CJJR-FM transmitter site is 250 kilometers. It is respectfully requested that the Commission coordinate Channel 229C0 at Montesano with Canadian authorities as a short-spaced allotment with respect to Channel 229C at Vancouver. As is detailed by the calculation below, a power restriction is necessary towards Channel 229C0 at Vancouver.

#### **Montesano 229C0 Allotment Short-Spacing to CJJR-FM 229C Vancouver**

##### **Power Limitation Calculation Details**

Proposed Channel 229C0 Allotment Site: N47-09-24 x W123-39-52

8-radial HAT for this site is 117 meters.

Therefore full Class C0 antenna height is (117m HAT + 450m HAAT) = 567 meters AMSL

Azimuth to CJJR-FM is 11.9 degrees True.

This lies between 0 deg True (HAAT = 372 meters) and 45 deg True (HAAT = 427 meters).

Interpolated HAAT for 11.9 deg True is 386.5 meters.

Distance to CJJR-FM is 250.43 km. CJJR-FM has a protected service radius of 97 km, so the

Montesano 229C0 allotment 38 dBu F(50,10) contour<sup>3</sup> must be limited to (250.43 - 97) =

153.43 km in order to prevent overlap.

17.8 kW at 386.5 meters HAAT places a 38 dBu F(50,10) contour at 153.3 km.

**The power limit is 17.8 kW at 386.5 meters HAAT along the 11.9 degree radial.**

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<sup>2</sup> The Working Arrangement does not include the U.S. Class C0, and so the Class C spacing requirement set forth in Section 2.4 pertains.

<sup>3</sup> The Working Arrangement does not include the U.S. Class C0, and so the Class C interfering contour set forth in Section 5.2.2.3 pertains.

## **Vacant Channel 230A at Port Renfrew, BC**

The proposed allotment site is short-spaced to a vacant Canadian allotment on Channel 230A at Port Renfrew, British Columbia. Under the terms of the Working Arrangement, the required first-adjacent-channel Class C<sup>4</sup> to Class A spacing is 182 kilometers, whereas the distance between the proposed allotment site and the Port Renfrew 230A allotment site is 164 kilometers. It is respectfully requested that the Commission coordinate Channel 229C0 at Montesano with Canadian authorities as a short-spaced allotment with respect to Channel 230A at Port Renfrew. As is detailed by the calculation below, a power restriction is necessary towards Channel 230A at Port Renfrew.

### **Montesano 229C0 Allotment Short-Spacing to Vacant 230A Port Renfrew**

#### **Power Limitation Calculation Details**

Proposed Channel 229C0 Allotment Site: N47-09-24 x W123-39-52

8-radial HAT for this site is 117 meters.

Therefore full Class C0 antenna height is (117m HAT + 450m HAAT) = 567 meters AMSL

Azimuth to Port Renfrew 230A is 340.7 degrees True.

This lies between 315 deg True (HAAT = 440 meters) and 0 deg True (HAAT = 372 meters).

Interpolated HAAT for 340.7 deg True is 401.2 meters.

Distance to Port Renfrew 230A is 164.13 km. Port Renfrew 230A has a protected service radius of 38 km, so the Montesano 229C0 allotment 52 dBu F(50,10) contour<sup>5</sup> must be limited to (164.13 - 38) = 126.13 km in order to prevent overlap.

98 kW at 401.2 meters HAAT places a 52 dBu F(50,10) contour at 126.0 km.

**The power limit is 98 kW at 401.2 meters HAAT along the 340.7 degree radial.**

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<sup>4</sup> The Working Arrangement does not include the U.S. Class C0, and so the Class C spacing requirement set forth in Section 2.4 pertains.

<sup>5</sup> The Working Arrangement does not include the U.S. Class C0, and so the Class C interfering contour set forth in Section 5.2.2.3 pertains.

### **Retention of First Local Service to Montesano and Ocean Shores**

The proposed Channel 229C0 allotment site is a hilltop suitable for tower construction and is located 22 km from the far side of Montesano. The standard 70 dBu contour distance for a Class C0 facility is 59.1 km. Therefore, and as depicted on the attached map exhibit, the proposed allotment will provide 70 dBu service to 100% of Montesano.

As a result of the simultaneously-filed KANY and KSWW applications, both Montesano and Ocean Shores will retain their first local services. Ocean Shores will retain a Class C3 service, while Montesano will receive an upgrade from Class C2 to Class C0 service. Due to the gain in population served, this arrangement of allotments is preferable under Priority 4 “other public interest factors.”

Montesano is an incorporated city with a 2000 Census population 3,312 persons, and is the county seat of Grays Harbor County.

### **“Tuck” Study Not Required**

The city of Montesano is not located within any Urbanized Area as defined by the 2000 Census, and as depicted on the attached map exhibit the proposed allotment’s 70 dBu contour encompasses less than 50% of the nearby Olympia-Lacey Urbanized Area.<sup>6</sup> Therefore, the instant proposal does not require a “Tuck” study.

### **Gain and Loss Areas**

The gain area directly associated with the reallocation of KANY to Montesano encompasses a land area of 12,264 sq km and a population of 383,451 persons. There is no loss area directly associated with the reallocation of KANY. There will be a net increase of service provided by KANY to 383,451 persons.

The gain area directly associated with the reallocation of KSWW to Ocean Shores encompasses a land area of 11 sq km and a population of 542 persons. The loss area directly associated with the reallocation of KSWW encompasses a land area of 4,107 sq km and a population of 23,223

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<sup>6</sup> The 59.1 km radius 70 dBu contour encompasses only 72 sq km (30%) of the 241sq km Olympia-Lacey Urbanized Area.

persons. There will be a net decrease of service provided by KSWW to 22,681 persons. However, it should be noted that KSWW has not constructed its Class C2 Montesano facility, and continues to operate as a Class C3 facility licensed to Elma.<sup>7</sup> Therefore, much of that loss area and population has never received service from KSWW. The Commission has previously stated that the loss of a potential service does not raise the same level of concern as that of an existing service.<sup>8</sup>

Taken together, the reallocations of KANY and KSWW will result in a gain area encompassing a population of 374,710 persons, and a loss area encompassing a population of 14,419 persons. As a whole, there will be a net increase of service provided to 360,291 persons.

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<sup>7</sup> When compared to the licensed operation of KSWW (BLH-19980730KA), the proposed reallocation to Ocean Shores would show a loss area population of 18,319 and a gain area population of 11,501, for a net loss of 6,818 persons.

<sup>8</sup> *Old Forge and Black River, New York*, 21 FCC Rcd 2470 (MB 2006), *Pelham and Meigs, Georgia*, 18 FCC Rcd 12187 (MB 2003); *Chatom and Grove Hill, Alabama*, 12 FCC Rcd 7664 (MMB 1997)

### Loss Area Remaining Services Analysis

The entire loss area (resulting from the combined reallocations of KANY and KSWW) will remain well-served, i.e. with at least five aural services remaining. The following stations each provide service to 100% of the loss area.<sup>9</sup>

KIRO	710 kHz	Seattle	(Class A 0.5 mV/m)
KFMY	249C	Oakville	
KDDS-FM	257C	Elma	
KNBQ	275C	Centralia	
KDUX	284C2	Aberdeen	

Numerous other AM and FM stations provide service to portions of the loss area. A list of those stations can be provided if the Commission so requires.

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<sup>9</sup>In determining reception service provided by FM stations, the area of service circumscribed by the station's 1.0 mV/m signal contour was considered, assuming 1) actual facilities for non-commercial stations operating on reserved channels, 2) maximum facilities for the class of station for stations (other than Class C stations) operating on non-reserved channels, and 3) minimum or existing Class C facilities, whichever is greater, for Class C stations. For clear channel Class A AM stations, the service area was defined by the station's 0.5 mV/m groundwave contour, based on its licensed facilities. For all other classes of full-time AM stations, reception service was defined as that service received within a station's nighttime interference-free contour. See Meeker and Craig, Colorado, 15 FCC Rcd 23858 (2000), Stamps and Fouke, Arkansas, 14 FCC Rcd 10533 (1999), Silverton and Bayfield, Colorado, 14 FCC Rcd 4071 (1999), Malvern and Bryant, Arkansas, 13 FCC Rcd 8426 (1998), and others.

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SEARCH PARAMETERS FM Database Date: 080630

Channel: 229C0 93.7 MHz Page 1

Latitude: 47 9 24

Longitude: 123 39 52

Safety Zone: 32 km

Job Title: KANY 229C0 MONTESANO ALLOT SITE

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K226AN LIC	MONTESANO WA	BLFT-050513ABT	226D 93.1	0.250 145.0	46-57-31 123-35-18	165.3	22.76 0.00	0 TRANS
KUBEaux LIC	SEATTLE WA	BXLH-020416AAH	227C 93.3	22.000 368.0	47-32-40 122-06-26	69.2	125.31 0.00	0 AUX
KUBEaux LIC	SEATTLE WA	BLH-831110AF	227C 93.3	87.000 375.0	47-32-39 122-06-29	69.3	125.24 0.00	0 AUX
KUBE LIC	SEATTLE WA	BLH-010206AAA	227C 93.3	100.000 387.0	47-32-40 122-06-26	69.2	125.31 20.31	105 CLEAR
VAC	MANZANITA OR	RM-10668	228C3 93.5	0.000 0.0	45-41-05 123-54-38	186.7	164.71 1.71	163 CLOSE
NEW-T APP	FORDS PRAIRIE WA	BNPFT-030314BJX	228D 93.5	0.250 80.0	46-43-13 123-02-29	135.5	67.86 0.00	0 TRANS
K228EU LIC	WOODLAND WA	BMLFT-070927AFU	228D 93.5	0.095 DA 157.0	45-46-35 122-41-30	153.8	170.66 0.00	0 TRANS
CJJRFM	VANCOUVER BC	-	229C 93.7	75.000 DA 686.0	49-21-29 122-57-09	11.9	250.43 -55.57	306 SHORT
NOTE: SEE TEXT FOR DISCUSSION								
K229BM LIC	ASTORIA OR	BLFT-070521AAO	229D 93.7	0.062 198.0	46-10-56 123-48-09	185.6	108.84 0.00	0 TRANS
KXAA LIC	CLE ELUM WA	BLH-021114AAA	229A 93.7	6.000 29.0	47-09-06 120-47-23	89.1	218.02 3.02	215 CLOSE
NEW-T APP	ELMA WA	BNPFT-030314ADW	229D 93.7	0.140 147.0	46-59-11 123-21-24	129.0	30.08 0.00	0 TRANS
K229BL LIC	GIG HARBOR WA	BLFT-070313ABC	229D 93.7	0.058 121.0	47-20-19 122-36-06	75.5	82.96 0.00	0 TRANS
NEW-T APP	INDEPENDENCE WA	BNPFT-030310BNG	229D 93.7	0.150 4.0	46-48-58 123-09-24	134.3	54.09 0.00	0 TRANS
NEW-T APP	MERCER ISLAND WA	BNPFT-030310ASK	229D 93.7	0.010 224.0	47-36-57 122-18-26	63.0	114.49 0.00	0 TRANS

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SEARCH PARAMETERS FM Database Date: 080630

Channel: 229C0 93.7 MHz Page 2

Latitude: 47 9 24

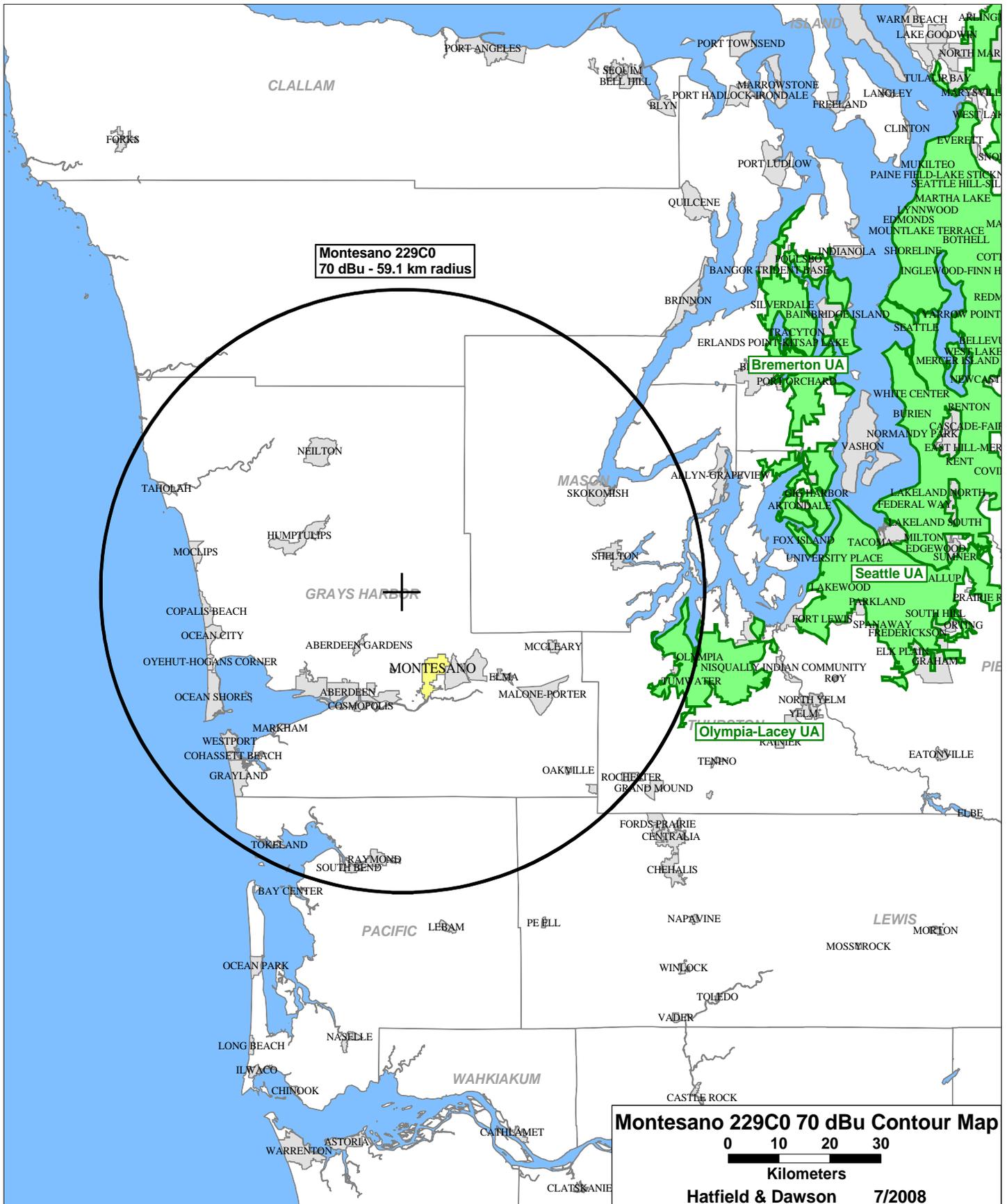
Longitude: 123 39 52

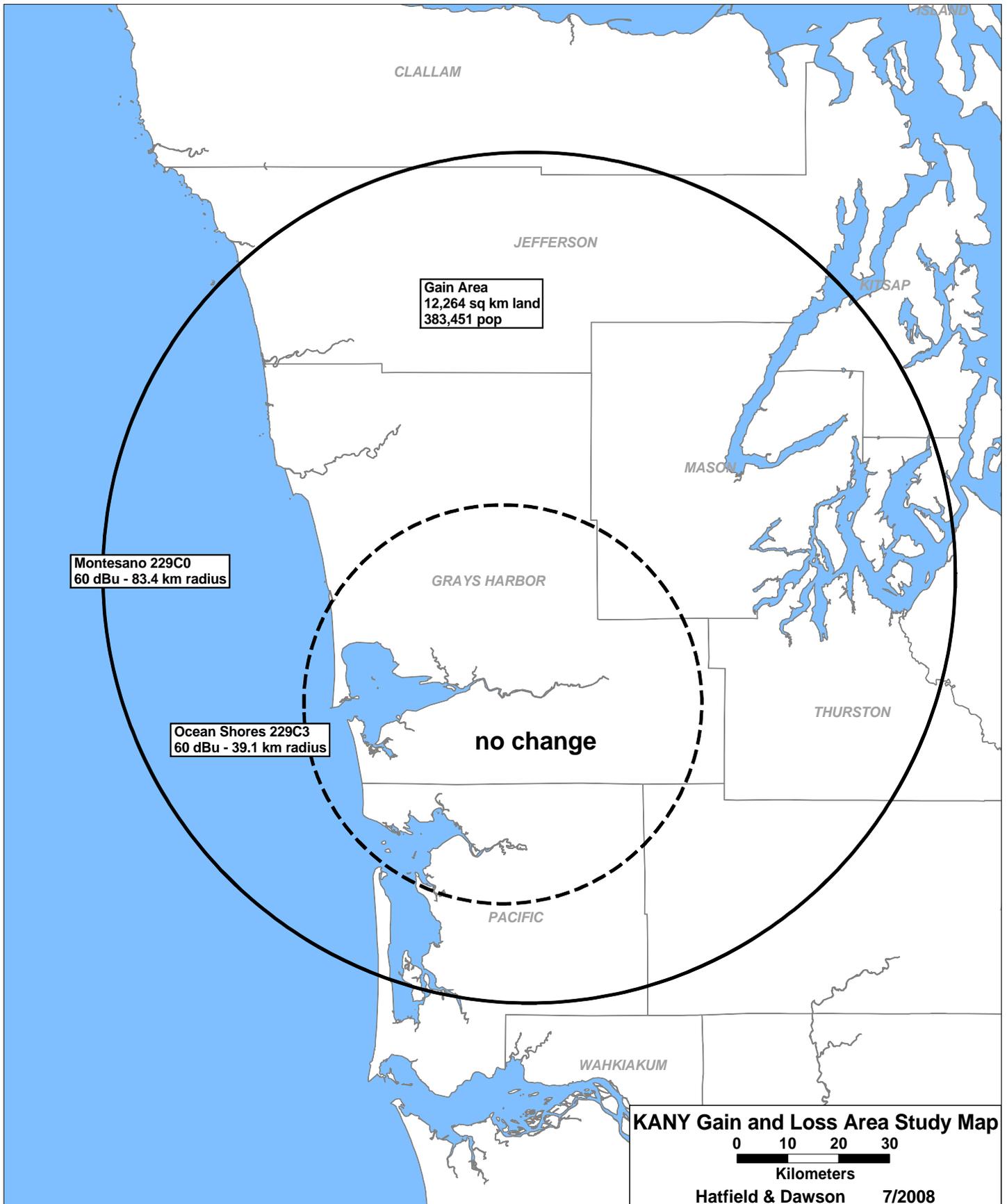
Safety Zone: 32 km

Job Title: KANY 229C0 MONTESANO ALLOT SITE

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KANY LIC	OCEAN SHORES WA	BLH-080304ABF	229C3 93.7	14.000 122.0	46-56-00 123-43-57	191.8 SS	25.36 -200.64	226 SHORT
NEW-T APP	ORTING WA	BNPFT-080617ADS	229D 93.7	0.075 DA 143.0	47-12-49 122-15-53	86.1	106.28 0.00	0 TRANS
NEW-T APP	ORTING WA	BNPFT-030313BBQ	229D 93.7	0.010 140.0	47-05-24 122-14-26	93.4	108.30 0.00	0 TRANS
VAC	PORT ANGELES WA	RM-11144	229A 93.7	0.000 0.0	48-06-54 123-26-36	8.8	107.84 -107.16	215 SHORT
NOTE: TO 271A PER SIMULTANEOUSLY-FILED PETITION FOR RULEMAKING								
K229AD LIC	YAKIMA WA	BLFT-030815ADU	229D 93.7	0.035 DA 0.0	46-37-49 120-32-01	102.7	245.67 0.00	0 TRANS
	PORT RENFREW BC	-	230A 93.9	0.000 0.0	48-32-48 124-24-10	340.7	164.13 -17.87	182 SHORT
NOTE: SEE TEXT FOR DISCUSSION								
KPDQ-FM LIC	PORTLAND OR	BLH-060208AMF	230C1 93.9	52.000 387.0	45-29-20 122-41-40	157.8 SS	199.87 3.87	196 CLOSE
K231BN LIC	OCEAN SHORES WA	BLFT-070629CFC	231D 94.1	0.010 11.0	46-51-31 124-04-38	223.5	45.64 0.00	0 TRANS
KMPS-FM LIC	SEATTLE WA	BLH-001023AEZ	231C 94.1	73.000 698.0	47-30-17 121-58-04	72.5	133.96 28.96	105 CLEAR
KMPSaux LIC	SEATTLE WA	BXLH-060530AHC	231C 94.1	53.000 371.0	47-32-37 122-06-35	69.3	125.10 0.00	0 AUX
KMPSaux LIC	SEATTLE WA	BXMLH-020311AAS	231C 94.1	58.000 DA 714.0	47-30-14 121-58-29	72.5	133.43 0.00	0 AUX
KGHZ-LP LIC	ABERDEEN WA	BLL-060628ACS	232L1 94.3	0.100 -33.6	46-58-32 123-50-01	212.5	23.89 0.00	0 LPFM
NEW-T APP	ABERDEEN WA	BNPFT-030317GYC	282D 104.3	0.075 202.0	46-55-53 123-44-02	191.9	25.59 0.00	0 TRANS

44444 END OF FM SPACING STUDY FOR CHANNEL 229 44444





Gain Area  
12,264 sq km land  
383,451 pop

Montesano 229C0  
60 dBu - 83.4 km radius

Ocean Shores 229C3  
60 dBu - 39.1 km radius

GRAYS HARBOR

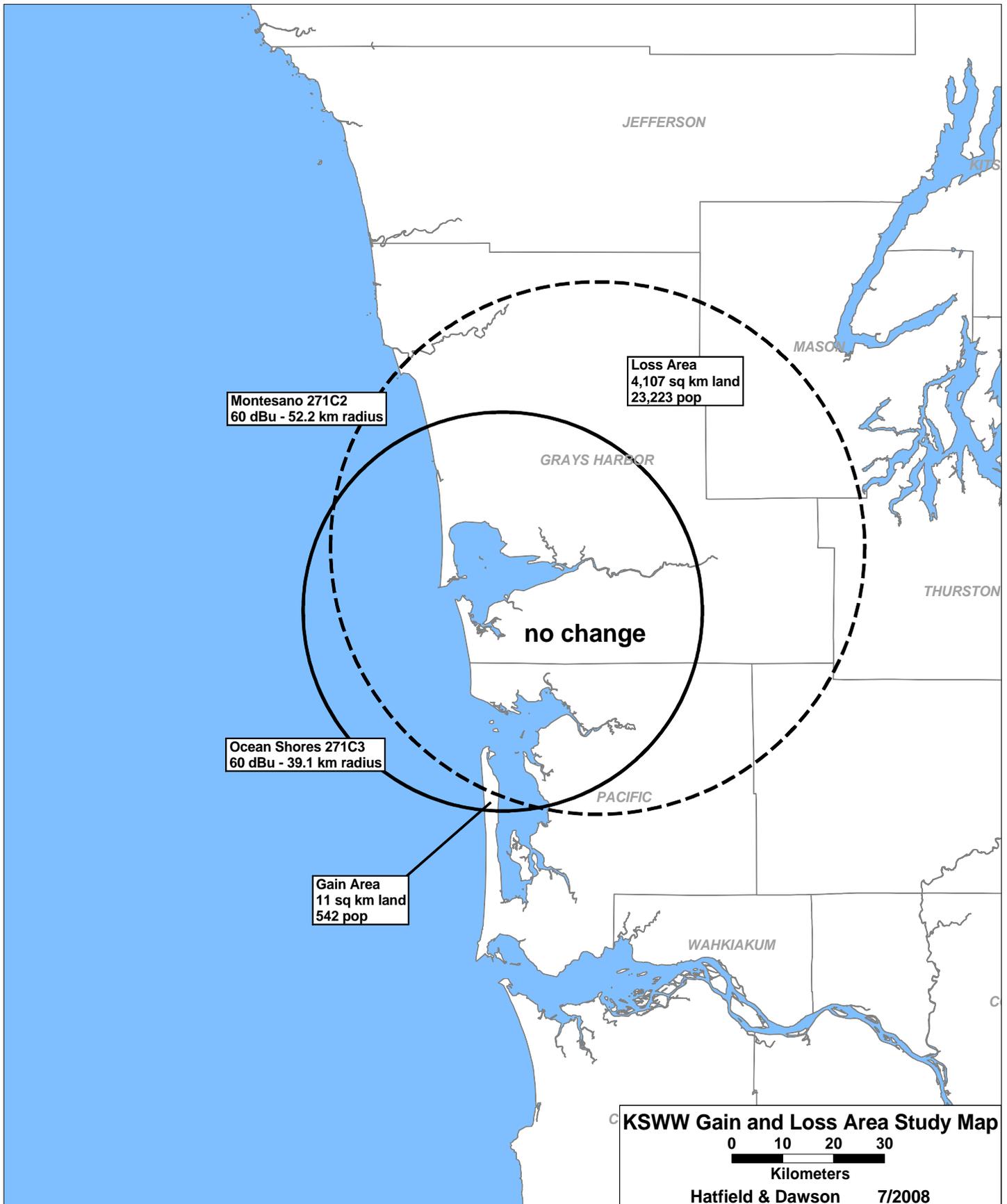
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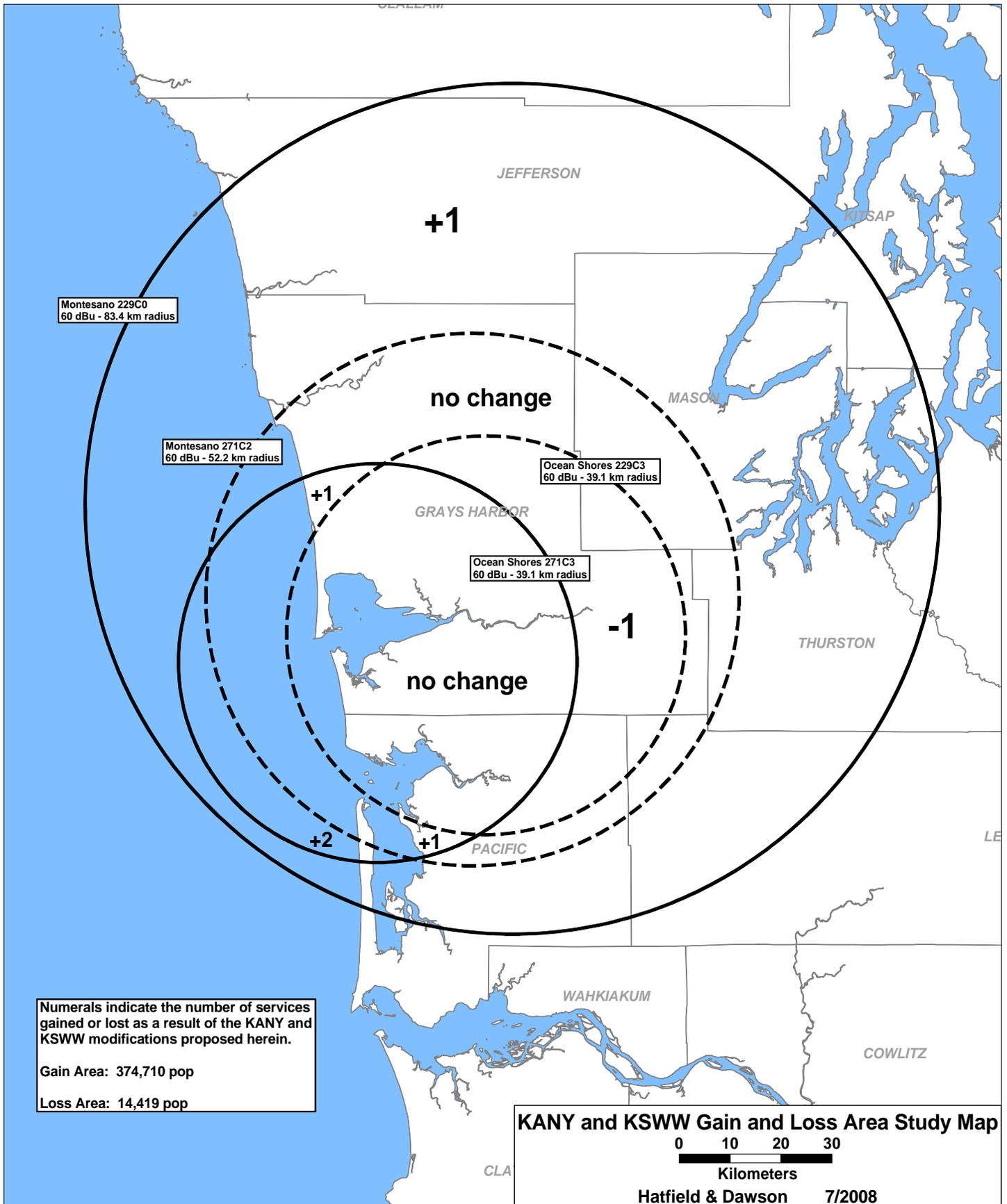
KANY Gain and Loss Area Study Map

0 10 20 30

Kilometers

Hatfield & Dawson 7/2008





Numerals indicate the number of services gained or lost as a result of the KANY and KSWW modifications proposed herein.

Gain Area: 374,710 pop

Loss Area: 14,419 pop

**KANY and KSWW Gain and Loss Area Study Map**

0 10 20 30  
Kilometers

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