

CAPISTRANO BAY DISTRICT
AGENDA REPORT
August 30, 2011

Committee Reports

ITEM I.1

LCP Committee – Mean High Tide Line (MHTL) Survey

This year's annual survey was conducted on June 21st, the day of the summer solstice at low tide – the optimum day and time for gentle ocean wave action coupled with maximum low tide for access into the surf with measuring equipment.

The other equally important reason for conducting the survey at the beginning of summer is to provide new freshly collected data to use in defense of the public who may challenge the MHTL location as it relates to the public's right of access to the beach.

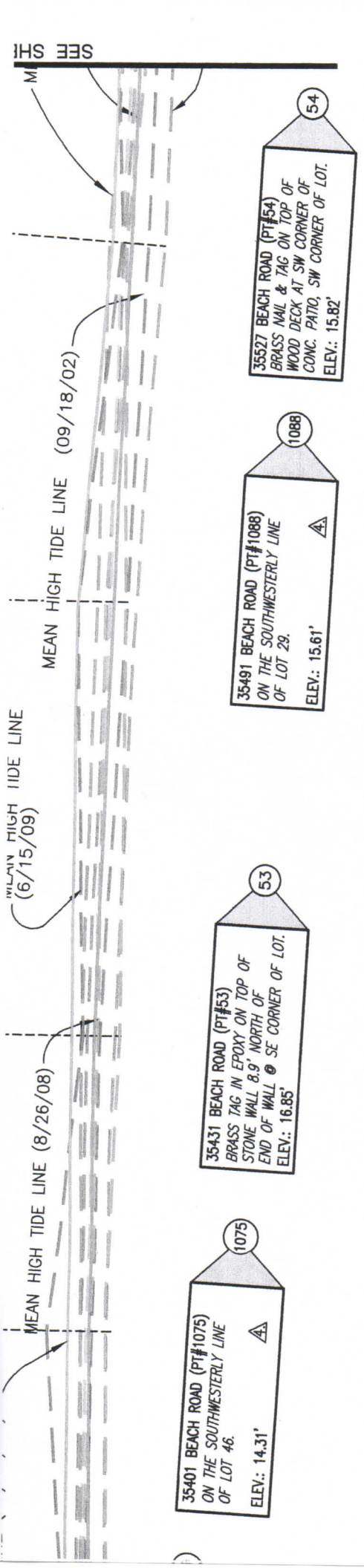
The survey measures and collects data on two important aspects of our beach:

- location of the mean high tide line
- magnitude of sand scour or sand build up (accretion)

The beach survey program began in 2001 by establishing thirteen control point locations to be measured each year. In 2008 the number was increased to twenty two control points to more accurately measure the MHTL along our 1.5 stretch of beach. The shoreline meanders in and out and the survey engineer felt that the original control points were not enough to account for the shoreline irregularities.

A chart of all the measurements taken over the past ten years is provided on the next page. The control point locations are identified by a control point # and a home address. Permanent survey markers were established at the beach side of homes nearest each control point. The measurements listed are the distance from the control point (on the beach side of the home) out to the MHTL.

The chart reads from left to right as we advance through the years and a brief inspection immediately tells the story – our beach has been consistently eroding each year. Comparisons between 2001 and 2011 indicate how dramatic the beach loss has been. And sand loss translates into a landward advance of the MHTL – the invisible boundary between the public and private beach zones. As the sand disappears, the public's right of pass and repass inches closer and closer to the homeowners' yards. And with this change in proximity, friction between homeowners and the public beach goer can increase.



DISTANCE FROM CONTROL POINT TO MEAN HIGH TIDE LINE

| CONTROL POINT | ADDRESS | DATE OF SURVEY | | | | | | | | | | | | | | | | | |
|---------------|----------------|----------------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|----------|----------|----------|---------|---------|---------|---------|
| | | 05-01-01 | 09-18-02 | 01-13-03 | 06-02-03 | 09-02-03 | 02-02-04 | 06-07-04 | 12-07-04 | 8-13-05 | 1-23-06 | 6-16-06 | 12-15-06 | 06-19-07 | 12-19-07 | 8-26-08 | 6-15-09 | 7-16-10 | 6-21-11 |
| PT. #47 | 35051 BEACH RD | 188.20' | 148.83' | 217.48' | 159.98' | 158.05' | 191.76' | 118.01' | 138.85' | 149.27' | 186.18' | 140.17' | 147.95' | 136.87' | 161.24' | 124.86' | 119.18' | 108.80' | 92.89' |
| PT. #242 | 35067 BEACH RD | 183.36' | 152.94' | 216.80' | 171.24' | 156.82' | 183.49' | 130.43' | 144.68' | 139.26' | 179.61' | 136.17' | 147.87' | 140.36' | 149.13' | 132.81' | 127.36' | 125.20' | 115.18' |
| PT. #244 | 35101 BEACH RD | 234.89' | 203.86' | 245.33' | 224.99' | 198.99' | 229.67' | 192.83' | 175.83' | 113.18' | 222.34' | 186.54' | 162.85' | 185.05' | 194.01' | 170.33' | 157.15' | 179.67' | 163.39' |
| PT. #246 | 35135 BEACH RD | 211.89' | 193.14' | 207.45' | 198.21' | 168.62' | 201.70' | 181.56' | 170.26' | 173.82' | 197.52' | 171.83' | 144.59' | 167.56' | 172.34' | 158.47' | 143.76' | 168.19' | 149.78' |
| PT. #1036 | 35167 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 156.88' | 141.56' | 166.97' | 142.44' |
| PT. #48 | 35197 BEACH RD | 202.90' | 188.94' | 239.40' | 191.57' | 182.42' | 216.96' | 184.25' | 173.50' | 180.63' | 228.14' | 187.71' | 173.20' | 178.21' | 183.04' | 176.56' | 151.56' | 180.86' | 159.58' |
| PT. #1048 | 35245 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 176.26' | 139.43' | 181.22' | 166.93' |
| PT. #252 | 35285 BEACH RD | 200.05' | 191.06' | 212.45' | 203.41' | 204.59' | 218.55' | 204.86' | 191.68' | 190.02' | 207.64' | 202.91' | 193.79' | 195.56' | 193.91' | 190.82' | 157.55' | 185.88' | 176.11' |
| PT. #1063 | 35321 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 173.45' | 153.34' | 180.55' | 160.06' |
| PT. #50 | 35361 BEACH RD | 174.90' | 157.46' | 176.17' | 173.06' | 170.16' | 173.81' | 166.50' | 148.57' | 155.07' | 164.91' | 166.32' | 153.10' | 164.57' | 153.31' | 154.08' | 138.64' | 160.78' | 139.48' |
| PT. #1075 | 35401 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 159.90' | 121.10' | 158.53' | 139.84' |
| PT. #53 | 35431 BEACH RD | 199.20' | 186.09' | 203.20' | 204.22' | 173.41' | 197.31' | 179.21' | 174.96' | 182.99' | 187.09' | 185.09' | 181.14' | 188.77' | 169.79' | 184.42' | 171.50' | 181.21' | 161.41' |
| PT. #1088 | 35491 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 158.34' | 134.46' | 165.19' | 134.10' |
| PT. #54 | 35527 BEACH RD | 192.80' | 178.21' | 159.04' | 192.80' | 177.65' | 169.58' | 181.03' | 157.16' | 158.72' | 156.47' | 177.26' | 154.47' | 173.34' | 143.86' | 164.12' | 155.52' | 163.24' | 146.60' |
| PT. #1101 | 35571 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 118.95' | 97.89' | 132.85' | 112.08' |
| PT. #258 | 35625 BEACH RD | 121.95' | 99.58' | 109.97' | 117.44' | 85.07' | 120.42' | 111.16' | 96.94' | 99.96' | 112.28' | 99.30' | 87.48' | 92.93' | 95.84' | 81.84' | 73.20' | 92.98' | 84.07' |
| PT. #1115 | 35661 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 74.13' | 62.69' | 93.29' | 70.83' |
| PT. #56 | 35687 BEACH RD | 113.10' | 103.47' | 104.31' | 112.98' | 103.24' | 104.78' | 100.06' | 98.00' | 95.39' | 91.93' | 89.85' | 86.32' | 86.43' | 91.37' | 87.52' | 83.25' | 88.12' | 77.66' |
| PT. #1126 | 35737 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 84.95' | 69.51' | 71.51' | 72.23' |
| PT. #58 | 35781 BEACH RD | 90.50' | 106.60' | 81.29' | 91.62' | 93.74' | 83.06' | 83.25' | 87.21' | 81.13' | 78.90' | 81.43' | 75.96' | 75.32' | 78.77' | 84.56' | 75.26' | 69.34' | 66.61' |
| PT. #1134 | 35821 BEACH RD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 106.82' | 103.93' | 90.90' | 94.01' |
| PT. #80 | 35851 BEACH RD | 96.60' | 108.05' | 90.11' | 94.86' | 98.20' | 94.36' | 99.19' | 93.12' | 95.63' | 86.16' | 90.44' | 81.38' | 87.44' | 89.67' | 94.68' | 97.39' | 76.82' | 88.54' |