

Regional Basemap Committee

Minutes

Wednesday ~ July 23, 2014 ~ 2:00 P.M.

Washoe County Administration

Engineering Conference Room

1001 East Ninth Street, Reno, Nevada

MEMBERS

Gary Beekman, Chair
Valerie Johnson, Vice-chair
Neil Bandettini
Doug Campbell
Matt Gingerich
Mike Gump
John Martini
Rebecca Reid

1. CALL TO ORDER AND ROLL CALL [Non-action item]

Chair Beekman called the meeting to order at 2:01 p.m. A quorum was established.

PRESENT: Gary Beekman, Neil Bandettini, Doug Campbell, Matt Gingerich, Valerie Johnson, and Rebecca Reid.

ABSENT: Mike Gump and John Martini.

Legal Counsel was not present

4. GOOGLE PRESENTATION AND DISCUSSION [Non-action item] – *An informational presentation and discussion of products available from Google.* [Taken out of agenda order]

Scott Ciabattari – Google, provided an overview of his background in working the geo side of Google products. Mr. Ciabattari explained that basemap imagery and other mapping products are new components of the Google Earth product line. Their newest product is imagery with 6-inch pixel resolution. As with Google Earth, individuals can zoom in and out of specific areas. In 2009, Google started developing their own basemap for Mexico, the United States and Canada, using the Census Tiger line data and other authoritative sources for geocoding. Mr. Ciabattari pointed out that maps are organic in nature and change over time and, therefore, Google decided to fly their own imagery to improve their basemap, especially roads, more frequently. They found that satellite images are not as precise as images obtained from airplane fly-overs. They now have 6-inch RGB color imagery and Color Infrared (CIR) imagery for the entire country. Mr. Ciabattari explained that they capture terrain at the same time and have a digital surface model (DSM) available. The data meet either the Class 1 or Class 2 accuracy standards of the American Society for Photogrammetry and Remote Sensing (ASPRS), depending on the terrain. Mr. Ciabattari drew attention to their low price point for local, state and federal government contracts.

During the discussion he explained that the data is refreshed on a tiered basis. Tier 1 is for the most populous areas (such as Metropolitan Statistical Areas), and data is refreshed annually. Tiers 2 and 3 are for areas that are more sparsely populated or rural in nature (such as northern Washoe County), and data is refreshed every 3 years. As the discussion continued, it was noted that Google might not be able to fully comply with “leaf-off conditions” because there are specific windows of time during the year when they fly various areas of the country. Mr. Ciabattari noted Google has criteria for flights for snow lines (snow is acceptable in the mountains but not the valleys) and for cloud cover (usually 5% but maybe as low as 1%).

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Mr. Ciabattari noted that Google charges \$8.00 per square kilometer for RGB imagery and \$2.00 more per square kilometer for CIR imagery (\$10.00 per square kilometer for both). The DSM can be converted to a digital elevation model (DEM) with 1-meter posting, but currently that product is in the beta testing phase and is not generally available at this time. They also have oblique imagery in the beta testing phase. It is anticipated that the oblique imagery will incur an additional cost per square kilometer. Mr. Ciabattari will find out if the list for being a beta tester has closed and if the Basemap Committee can be a beta tester.

Discussion then focused on the means of delivery of their products. The primary means is as a Web Map Service (WMS), with a subscription period of twelve (12) months. The WMS could be used in desktop software or in online mapping applications during the subscription period. They also have an option for “on-premise” delivery, with data either being downloaded by the user from Google’s Cloud or being delivered on an external hard drive. It was noted that the on-premise delivery option requires a three (3) year contract, which includes updated products whenever they become available. It was explained that the data would be for the use of the Basemap Committee agencies and their contractors and the data cannot be sold or otherwise distributed in the public domain, unless subscribers are listed in the interlocal agreement. It was explained that once a contract is executed, data is made available to the subscriber immediately.

Discussion then noted that the cost to the Basemap Committee of the 2013 flight by Pictometry was about \$200,000.00 for 3-inch imagery and included Lidar. Mr. Ciabattari explained that a 3-year contract with Google for on-premise data could be paid in a lump sum or via three (3) annual installments of \pm \$12,000.00 depending on the AOI (Area of Interest) and that, during the term of the agreement, information would be refreshed depending on the tier for flights. It was pointed out that for the purposes of the Regional Basemap Committee the 3-inch imagery provided great resolution.

Discussion then turned to the accuracy of the samples provided by Google. Of some concern is what appears to be a horizontal discrepancy of 5- to 15-feet between the sample 6-inch imagery provided by Google and the 2013 3-inch imagery from Pictometry. It was suggested that part of the issue in accuracy may be due to the differences in projection. The Google imagery is in Web Mercator Auxiliary Sphere and the 2013 Pictometry imagery is in State Plane Coordinate System Nevada West U.S. Foot. It was suggested that Mr. Ciabattari have a couple of samples of the Google imagery reprojected so Basemap Committee members could ascertain accuracy. It was pointed out that Google imagery meets established ASPRS national standards for accuracy. It was explained that the Regional Basemap Committee would further discuss the issues further and that the decision would be forwarded to Mr. Ciabattari.

Discussion then turned to how Google could address mapping needs for the Truckee River Flood Project. Mr. Ciabattari explained that the DSM and the oblique imagery are still in the beta testing phase and that Google Street View is a different service. Other discussion noted that Google does not yet offer a Lidar product but may at the end of 2014.

Mr. Ciabattari commented that he would have selected samples of imagery reprojected to the State Plane Coordinate System and provided to the Basemap Committee.

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Discussion then noted that satellite photos are typically horizontally accurate within a range of 3- to 5-feet. While satellite imagery serves a somewhat different purpose, it is becoming a more accurate product.

Mr. Ciabattari left the meeting at 2:43 p.m.

During the ensuing discussion, it was suggested that reprojecting the samples might resolve the accuracy issues identified earlier, and it was noted that the suggested cost for the Google 6-inch imagery was less than the 2013 3-inch imagery and Lidar. As the discussion continued, it was noted that the loss of data sales might have some detrimental effect on the group and that perhaps the next flight, regardless of vendor, should return to the 6-inch resolution. It was noted that 6-inch resolution imagery files would be much easier to handle on NV Energy's servers given the size of their Northern Nevada service area. Discussion then noted that there would be less control over when Google would fly an area, especially pertaining to the optimal early part of the year when there is minimal leaf coverage. Other discussion noted that Google imagery could be used in the background in CAD (Computer Aided Drawing) and other software. Discussion then focused on Google's 3-year agreement requirement and costs, which could be shared by subscribers. Other discussion noted that a 3-foot variance in elevation would not be useful to the Truckee Meadows Flood Project.

Discussion then focused on whether or not data could be disseminated to consultants, which they may be able to get from Google Earth at no charge. It was suggested that perhaps the delivered copy would then become the property of the holder who could do with it what they wanted. Other discussion noted that the scenario presented today would cost 1/5th of the 2013 flight and that perhaps the region should consider going back to 6-inch resolution imagery. It was pointed out that regardless of cost the region needs to have a quality product.

No specific action was taken.

2. PUBLIC COMMENTS [Non-action item]

There were no public comments.

3. APPROVAL OF APRIL 23, 2014, MEETING MINUTES [For possible action]

It was moved by Valerie Johnson, seconded by Doug Campbell, to approve the April 23, 2014, minutes as submitted. MOTION CARRIED.

5. BASEMAP COMMITTEE FUND UPDATE [Non-action item] – *An update and discussion regarding the Basemap fund.*

Gary Beekman – Washoe County Technology Services, noted that Washoe County is in the process of transferring funds to the current fiscal year and that he believes there to be \pm \$60,000.00 in the account. It appears that after invoices are paid there will be approximately \$80,000.00 in the account. Typically, \$30,000.00 is received in subscription fees each year.

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6. PICTOMETRY UPDATE [Non-action item] – *A review and discussion regarding the 2013 Pictometry data.*

Gary Beekman – Washoe County Technology Services, noted that he had received little input from member agencies and subscribers and that the Pictometry data should be available on the Washoe County website in the near future.

7. SUBCOMMITTEE UPDATE [For possible action] – *A review, discussion and possible action to approve, deny to otherwise modify recommendations of the Subcommittee.*

Chair Beekman provided an overview of the subcommittee discussion, which included: 1) a discussion about membership with a consensus to maintain the status quo; 2) a suggestion to raise the annual fee starting July 1, 2015, to \$10,000 for current subscribers and to \$20,000 for new subscribers for the first year and then \$10,000 thereafter, with further reevaluation of the fee structure in subsequent years; and 3) having membership fees reviewed with the District Attorney's Office to determine if there is anything in the existing Interlocal Agreement that keeps members from annual charges, which would be needed so that a flight can be conducted ideally on an annual basis.

Doug Campbell noted that there may not be a choice in the fee structure unless additional paying members are brought in to the group. Therefore, it is critical that the bigger picture be kept in mind in order to avoid depleting the account.

There was minor discussion about TMWA (Truckee Meadows Water Authority) and Stantec. It was noted that NDOT (Nevada Department of Transportation) had used the Basemap Committee imagery product in the past but seem to have gone their own way. It was noted that the Washoe County Assessor's Office has a contract with Pictometry for two (2) additional flights for 6-inch imagery, with one flight in 2015 and another in 2017. It was explained that the Washoe County Assessor's Office uses Tech funds for these imagery purchases and in 2013, in order to get a better imagery product, funds from the Basemap Committee were also used to pay for the Pictometry's higher resolution (3-inch) AccuPlus product, and this could be done again in the future. Other discussion pointed out that a move to another vendor for the service would require a full RFP (Request for Proposal) process. Therefore, it may be prudent to join with the Assessor's Office in securing the 3-inch AccuPlus product with a separate contract as was done in 2013. Discussion then suggested that perhaps the 6-inch resolution might be more practical as it would not deplete the Basemap Committee's resources.

8. PUBLIC COMMENT [Non-action item]

There were no public comments.

9. ADJOURNMENT [Non action item]

Chair Beekman adjourned the meeting at 3:50 p.m.

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AS APPROVED BY THE REGIONAL BASEMAP COMMITTEE IN SESSION ON NOVEMBER 13, 2014.