![RECLAMATION — Managing Water in the West]

2009 Lake Mead LiDAR Survey

U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Boulder City, Nevada

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

2009 Lake Mead LiDAR Survey

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Abstract

The Bureau of Reclamation's (Reclamation's) Boulder Canyon Operations Office contracted with Woolpert to collect Light Detection And Ranging (LiDAR) data for the exposed shoreline of Lake Mead in Nevada and Arizona. The purpose of the data collection was to provide more accurate area and capacity tables for the upper portions of the lake. This report produced by Reclamation's Lower Colorado Region Geographic Information System (GIS) group summarizes the 2009 Lake Mead LiDAR data sets. The 2009 LiDAR data sets provided detailed elevation data for lake elevations from 1095 feet up to 1230 feet.   In order to calculate the capacity tables based on this data, previously published capacities below elevation 1095 feet were used as baseline data. These values were taken from the 2001 Lake Mead Sediment Survey report completed in February 2008 by Ronald Ferrari of Reclamation's Technical Service Center in Denver, Colorado.

The 2009 LiDAR data analysis determined that the area of Lake Mead at elevation 1230 feet is 163,504 acres. The 2009 LiDAR data when used in conjunction with the 2001 sediment survey determined the volume of Lake Mead, including dead storage, at elevation 1230 feet is 30,330,020 acre-feet. The live capacity of Lake Mead (capacity between dead storage elevation of 895 feet and spillway elevation of 1229 feet) based on the 2009 LiDAR data analysis is 27,620,294 acre-feet.

LiDAR Background

Reclamation required high resolution Orthophotography and LiDAR data along the emergent shoreline areas of Lake Mead. These data were used in support of hydrologic modeling activities performed by the River Operations Group, Boulder Canyon Operations Office. The data were also required in order to establish baseline elevations which supplemented Lake Mead bathymetric elevations, collected by multi-beam Sound, Navigation and Ranging (SONAR) in 2001-2002.

The project Area Of Interest (AOI) is outlined in red on the map in Figure 1, and is approximately 172 square miles. As of September 2009, the exposed shoreline was between elevations 1094 feet and 1230 feet.

Requests for proposals were announced to the three vendors who have been established as on-call contractors for Reclamation's Aerial Photography and Mapping Services. After reviewing the Scope of Work and Technical Approaches, Woolpert, Inc. was awarded contract #08-CA-40-8258 in September 2009.
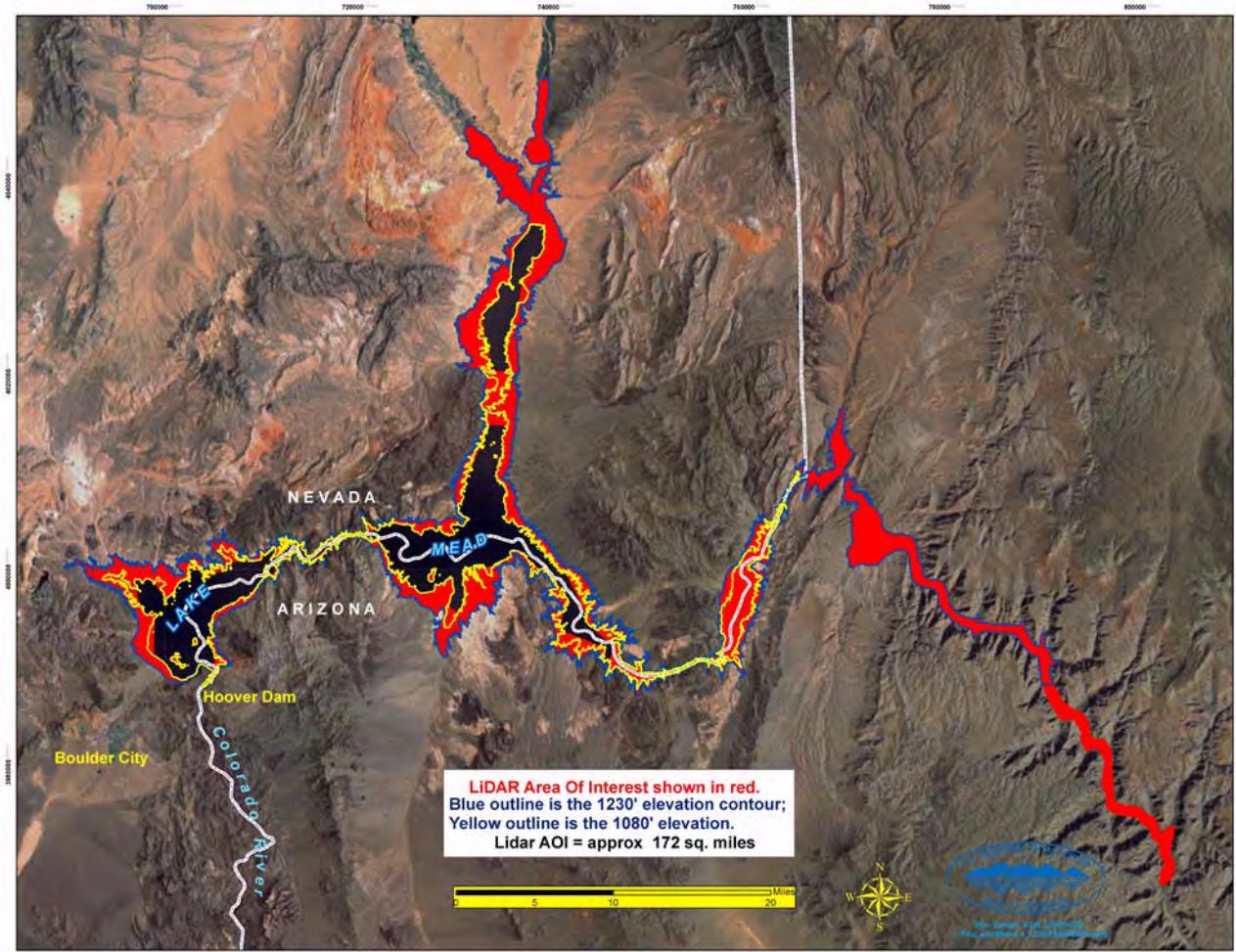
Figure 1.
Area of Interest 2009 LiDAR

Ground Control

Survey points, whose coordinates have a high degree of accuracy, are critical components of the data collection process. These points, known as "Ground Control" are used in the post-processing of the imagery and LiDAR datasets, and tie those data to real-world coordinates. Ground control information was obtained from the National Geodetic Survey (NGS), as well as local entities such as the Southern Nevada Water Authority and the states of Arizona and Nevada. The project control layout utilized as many existing control stations as possible, thereby reducing the number of new control stations that needed to be placed. Each of the surveyors used portable handheld Global Positioning System (GPS) receivers which easily located the existing control stations. Woolpert utilized Real-Time Kinematics (RTK) GPS surveying which uses cellular and/or radio modems for measuring photogrammetric control stations and quality control check points. Rapid-static GPS surveying was used for those photogrammetric control stations and quality control check points that are located in areas where

existing monumentation does not exist.   The survey crews, who are licensed in both Arizona and Nevada, established new photo control stations, many of which were in sparsely developed areas. The crews, transported by truck and by boat, placed 27 ground control panels throughout the Area of Interest.

The National Park Service (NPS) had issued a research permit to Woolpert for the panel placement, and since the panels were within the Lake Mead National Recreation Area, NPS required them to be removed within 2 weeks upon completion of the flights, which was accomplished.

Figure 2.
Ground Control Points

Orthoimagery Acquisition

Woolpert used their Leica Airborne Digital Sensor40 camera for the 4-Band, 32 cm Ground Sampling Distance (GSD) imagery collection portion of the project. Flying 39 paths at 10,000 feet Above Ground Level (AGL), the camera collected all spectral bands at full resolution, thereby maintaining the spectral integrity of the image data that was used for remote sensing and vegetation analysis. The raw 0.32 centimeter data was up-sampled to 0.5 meter for the final product. Airborne GPS/Inertial Measurement Unit (IMU) was utilized for orientation and stabilization of the airborne sensors. A GPS track log (trajectory) file was stored and included as a deliverable. The LiDAR data that was collected in a second pass over the area was processed to create a Digital Elevation Model (DEM) file, sufficient to support the orthoimagery rectification. The final orthoimagery data has exceeded National Map Accuracy Standards (NMAS) for 1:12,000 scale map products.

LiDAR Acquisition

LiDAR relies upon the time interval of pulses of laser light which are emitted from the aircraft, and returned to the airborne sensor in order to characterize features on the earth. "Bare Earth" is distinguished from "non-ground" LiDAR through post-processing techniques that subtract the heights of vegetation, and manmade features in order to derive Earth surface elevations. Post-processing software interpolates the x and y horizontal, and the z elevation points into contour data.

For this project, the LiDAR was collected using the Airborne Laser Scanner (ALS) 50 multi-pulse in the air (MPIA) LiDAR Sensor with 1.2 meter average post spacing in the horizontal (x and y), and a vertical (z) accuracy of better than 18.5-centimeter Root Mean Square Error (RMSE) for unobscured Bare Earth surface areas. The LiDAR was acquired at a lower elevation than the orthoimagery, flying at an altitude of 7,500 feet AGL, with 56 flight lines, and an average effective swath width of 6,200 feet. In areas of very sharp relief, such as around canyon walls, supplemental LiDAR flight lines were added to ensure adequate modeling. The aircraft is equipped with two sensor ports, allowing for dual data acquisition in a single flight.

The acquisition of LiDAR supports the orthophoto process, and used in conjunction with conventional photogrammetric compilation, produces a Digital Terrain Model (DTM) in which the 2-foot contours were derived. The LiDAR data was supplemented with 3-D breaklines (Islands, Sand Bars, Rock Formations, Roads, Bridges, Dams, Spillways) and stereoscopically quality-controlled to produce, and hydrologically enforce the DTM and subsequent 2-foot contour intervals. The contour vector data were snapped, joined, and concatenated to create continuous line segments without over runs and gaps.

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Deliverables

Deliverables included: 4-band Orthoimagery; LiDAR-derived DEM in ArcGIS GRID format (floating point raster, 1 meter resolution); and LiDAR/DEM derived contours, including breaklines, at 2-foot elevation intervals in ArcGIS Shapefile format. All data below elevation 1227.5 feet were received by October 31, 2009 by Reclamation's Lower Colorado Regional Office Geographic Information Systems (LCRO-GIS). The remaining data above elevation 1227.5 feet were received by September 30, 2010. The data is in the Universal Transverse Mercator (UTM) Zone 11 projection, and North American Datum (NAD) – 1983 (HARN), and North American Vertical Datum (NAVD) – 1988 (Geoid03) coordinate system.

During data processing it was found that some data was missing between elevations 1227.5 and 1230.0 feet. This was due to the vertical transformation from NAVD 88 to the Powerhouse datum. There is an approximate 2.5 foot difference between NAVD 88 datum and the Powerhouse datum. The initial data request from Woolpert was for all data below the 1230 foot elevation (NAVD 88). This elevation corresponded to approximately 1227.5 feet in the Powerhouse datum. Woolpert was asked to deliver all available data (up to elevation 1250 feet NAVD 88 datum) in order to ensure that Reclamation had complete coverage of the exposed lake shore up to elevation 1230 feet (Powerhouse datum). Data received from Woolpert was included in the step 5 (Transform data from NAVD 88 vertical datum to the Powerhouse datum) of the data analysis process. The second data request asked Woolpert to deliver the data points above elevation 1230 feet (NAVD 88) in ASCII text file format that included the latitude, longitude and elevation (in National Geodetic Vertical Datum of 1929 [NGVD 29 datum]) for each data point.

The Powerhouse datum is a reference to the elevation as recorded by the water surface gauge at Hoover Dam. The Powerhouse datum was defined in 1935 as a readjustment to the NGVD 29 sea level datum. The adjustment was made to obtain elevations consistent with the surrounding control. The Powerhouse datum is 0.55 feet lower than the NGVD 29 datum. A detailed description of the Powerhouse Datum is available in the 1970 Bureau of Reclamation Report titled "The 1963-64 Lake Mead Survey" published by J. M. Lara and J. I. Sanders.

Data Processing

The 1-meter grids received by LCRO-GIS from Woolpert were converted to point feature classes and combined with data points developed from the second data delivery. These combined datasets were then used to develop surfaces, called Triangulated Irregular Networks (TINs) in ArcGIS 9.3. Due to the size of the datasets, LCRO GIS used - a multi-step process in order to derive surfaces that were reasonable representations of the exposed shoreline.

Step 1: Develop GIS boundaries for the sheets consistent with previous Lake Mead studies (sheets 1 – 50 See Figure 3 for layout)

Boundaries for the sheets are based on the 5-minute latitude-longitude grid lines. The initial sheet boundaries were developed following these lines. During the analysis phase it was noted that TINs built based on the original sheets did not meet adjacent TINs – there was a 1-foot space between the TINs. As a result, half the sheets were buffered by an additional foot. This produced a one foot overlap on all edges of the sheets. This allowed the final TINs to meet at the edges of each sheet.

LiDAR data covered the exposed shoreline of the lake up to sheet 45. Surfaces for Sheets 46 thru 50 were developed using United States Geological Survey (USGS) 10-meter DEMs.

Step 2: Mosaic grids into larger grids that represent the sheet

One-meter grids provided by Woolpert were mosaiced using the Arc Tools command "Mosaic to New Raster" from the Data Management tool set. In mosaicing the grids, the Pixel Type was set to "32-bit Float" to ensure that the accuracy of the elevation data points were neither truncated, nor rounded.

Step 3: Clip the grids back to the sheet boundaries

Grids were clipped to the sheet boundaries using clip from the Raster Processing tools of Arc Toolbox. Grids overlapped at the edges by 1-foot to allow for the TIN build process.

Step 4: Develop point feature classes for each sheet boundary

The 1-meter grids were converted to point feature classes and then converted to text files in preparation for the transformation to the Powerhouse datum. The text files from the second data request were formatted to be compatible with the VDatum software package.

Step 5: Transform data from NAVD 88 vertical datum to the Powerhouse datum

The Powerhouse datum is 0.55 feet lower than the NGVD 29 vertical datum. The software package called VDatum was used to convert NAVD 88 elevations to NGVD 29 elevations. The Powerhouse datum elevations were then obtained by subtracting 0.55 feet from the NGVD 29 elevations.

All data from both data requests (points from the original 1-meter grids, and points developed from the second data request) were transformed to the Powerhouse datum. Version 2.2.7 of VDatum was used for the conversions. VDatum is software developed by NOAA to calculate the elevation differences between different vertical datums (see http://vdatum.noaa.gov/ for more information on the software).

Once all the points were transformed into the Powerhouse datum, new point feature classes were developed and placed in geodatabases. These feature classes consisted of the data from both the first and second data requests.

Step 6: Build grids from the point feature classes of the two data requests

> One-meter grids were built from the transformed feature classes using Spatial Analyst in ArcGIS. The convert Feature to Raster command was used with the output cell size set to 1 meter.

Step 7: Build the TIN based on the transformed 1-meter grids.

> Final TINs were built based on the transformed 1-meter grids. The "Raster to TIN" command from the "3-D Analyst" tool set of Arc Toolbox was used for the building of the TINs. This command has several required parameters in order to produce a good TIN. They include:

> > a. Z Tolerance: The maximum allowable difference in (z-units) between the height of the input raster and the height of the output TIN. By default, the z-tolerance is 1/10 of the z-range of the input raster.

> > b. Maximum Number of Points: The maximum number of points that will be added to the TIN before the process is terminated. By default, the process will continue until all the points are added.

> > c. Cell Size (Under Environments, Raster Analysis Settings): The level of detail (of features/phenomena) represented by a raster is often dependent on the cell size, or spatial resolution of the raster.

> The following values were used for the above parameters:

> > Z Tolerance: 0.5 meters

> > Maximum Number of Points: Left Blank (this is filled in by a default value in ArcGIS)

> > Cell Size: 1 (meaning 1 meter, or the same as the grid resolution)
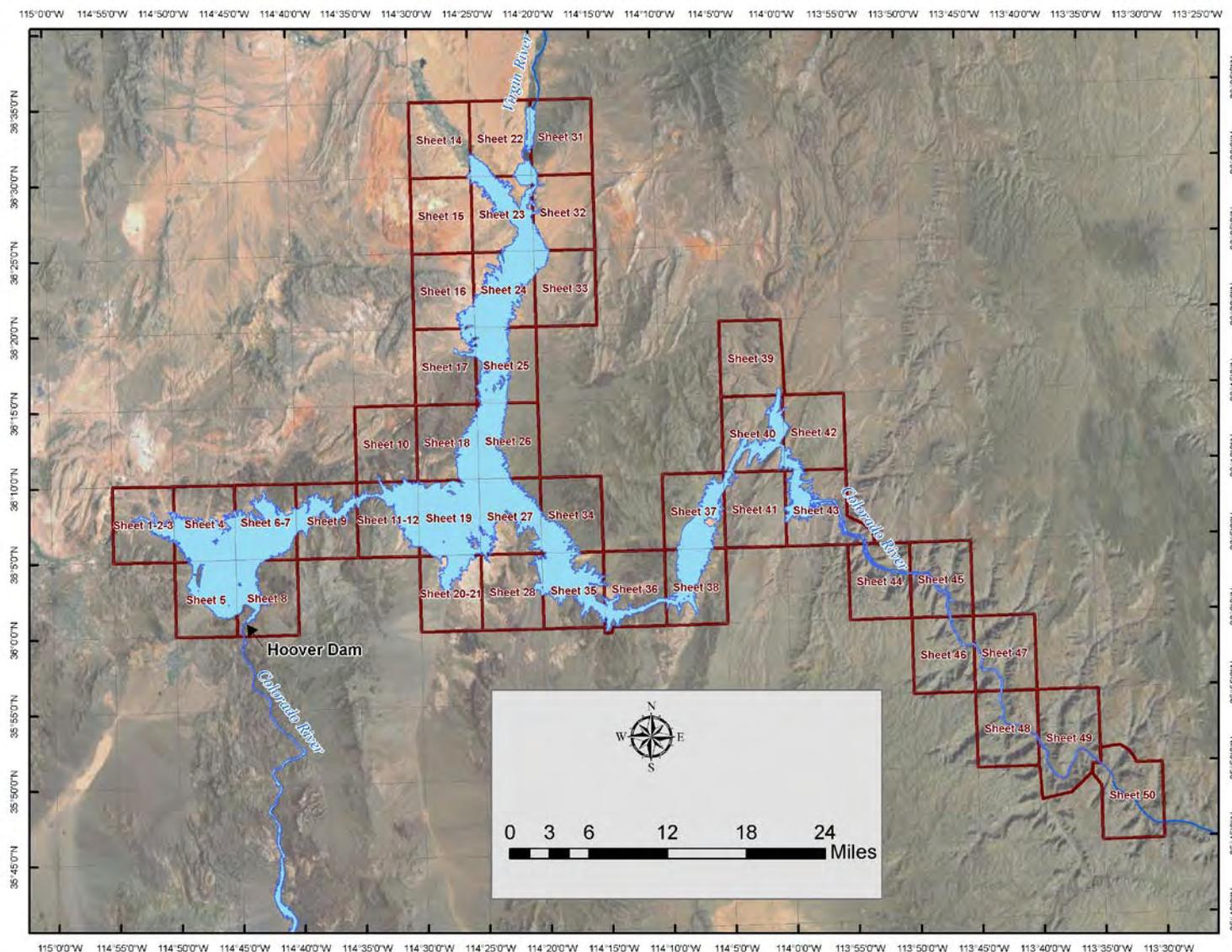
Figure 3.
Sheet Layout for Analysis

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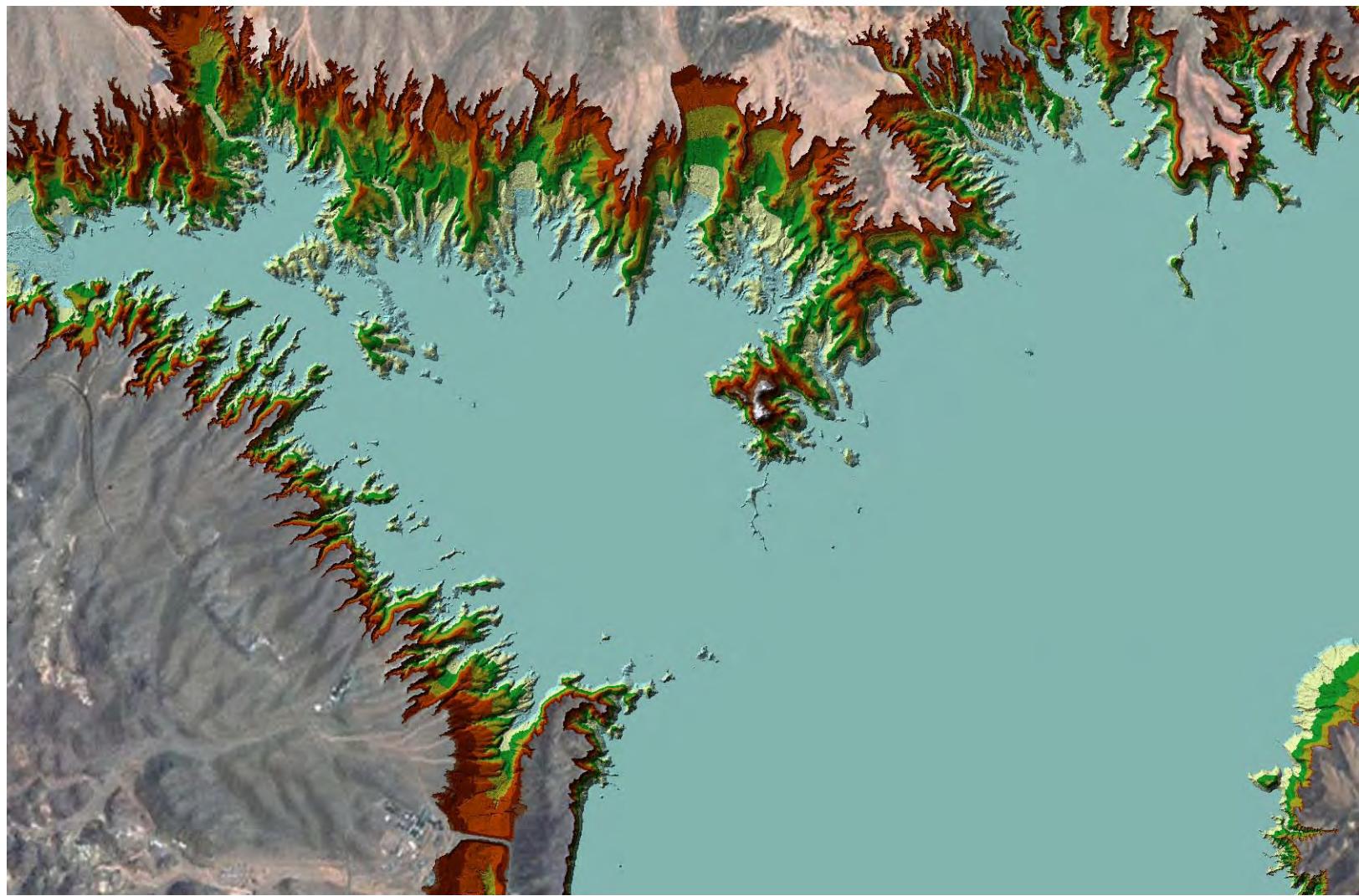
Figure 4.
Boulder Basin Surface from 2009 LiDAR

Analysis of Surfaces and Development of Area-Capacity Tables

A multi-step process was taken to analyze the surfaces.

Step 1: Develop area – volume tables using ArcInfo Workstation 9.3. The volume command in ArcInfo Workstation was used to complete the calculations of the area and volume of the TINs. The volume command requires the following parameters:

   a. an input surface (TIN)

   b. a datum: the elevation at which the area and volume are being calculated. The range of datums for the volume command was from 1095.0 feet to 1230.0 feet.

   c. an output file: ArcInfo table containing areas (in square meters) and volumes (in cubic meters)

   d. Z-Factor: Used to get consistent units between the horizontal and vertical directions. The TINs built in the data processing steps had horizontal units of meters and vertical units of feet. The Z-factor used in the volume commands was 0.3048, which is the conversion factor used to convert meters to feet.

An AML (Arc Macro Language) script was used to calculate the area and volume of each TIN at 0.1-foot intervals.

Step 2: Calculate the area in acres and volume in acre-feet for each TIN. The output files for the TINs provided areas in square feet and volumes in cubic feet. An area column and a volume column were created. Values in these columns were calculated in acres and acre-feet respectively. Area in acres = area in square meters; divided by 4046.85. Volume in acre-feet = volume in cubic meters; divided by 1233.48.

Step3: Convert ArcInfo tables into database files and import into Excel. Excel was used to compile the results from the volume AMLs. Results from each sheet were pulled into separate tabs in Excel. The functions of Excel were then used to add the areas and volumes of each elevation from each sheet to obtain a total area and total volume for each elevation that was calculated.

Step 4: Develop summary tables. Three tables were developed based on the Excel spreadsheets for each sheet that was calculated.

   a. Area in acres at 10-foot increments
   b. Area in acres at 0.1-foot increments

c. Volume in acre-feet at 0.1-foot increments.

These three tables were chosen because they were developed for previous datasets. One additional table that had been developed in the past (volume of Lake by Area in 10-foot increments) was not developed as it was not necessary to obtain the new area-capacity tables of interest. If the Volume by Lake Area table is desired, it can be generated from data developed in this process.

Lake Mead elevation at the time the LiDAR data was collected was 1093.4 feet September 2, 2009. The LiDAR data set provided very good detail of the exposed shoreline between elevations 1093.4 feet and 1230 feet. For elevations below 1093.4 feet the best data source is the 2001 Lake Mead bathymetry study. In comparing these two data sets between the 1094 feet and 1095 feet elevations it was noted that there was a relatively abrupt transition in surface area between the elevation 1094 feet bathymetry data and the elevation 1095 feet LiDAR data.

In order to make the change in area from the 2001 bathymetry data to the 2009 LiDAR data set more reasonable, the bathymetry data for the area table was reinterpolated back to elevation 1080 feet. The method of interpolation for the area is discussed in the following sections.

Area in 10-foot increments (See Appendix I)

Elevations 690 feet to 1080 feet

Values for the table at this elevation range were pulled from the 2001 Lake Mead Sediment Survey.

Elevation 1090 feet

The Value for the table at this elevation was interpolated using straight line interpolation between elevation 1080 feet (2001 Lake Mead Sediment Survey) and elevation 1095 feet (2009 LiDAR Survey).

Elevation range from 1100 feet to 1230 feet

Values for this table in this elevation range were calculated values from the individual sheets of the 2009 LiDAR data.

Area in 0.1-foot increments (See Appendix II)

Elevation 690 feet to 1080 feet

Values for the table at this elevation range were pulled from the 2001 Lake Mead Sediment Survey.

Elevation 1080.1 feet to 1094.9 feet

Straight line interpolation was used to calculate the values of the table within this elevation range. The interpolation was started at elevation 1080 feet in order to provide a smoother transition from the 2001 area-capacity table based on sedimentation survey and values to the 2009 area-capacity table based on the LiDAR data. See Appendix II for results of the interpolation.

Elevation range 1095.0 feet to 1230 feet

Values for this table in this elevation range were calculated from the 2009 LiDAR data sets. The volume command in ArcInfo was used in a macro to step through each data set at 0.1-foot increments to calculate the area and volume.

Volumes in 0.1-foot intervals (See Appendices III and IV)

Elevation 690 feet to 1094.9 feet

Values for the table at this elevation range were pulled from the 2001 Lake Mead Sediment Survey.

Elevation 1080.1 feet to 1094.9 feet

The values in the volume table in this elevation range were not interpolated as was done for the area table. To verify that the interpolation was not necessary the average depth within a given elevation range was calculated. The average depth was defined as the Lake Volume divided by the Lake Area at a given elevation. Table 1, below, shows the average depth for elevations between 1076 feet and 1085 feet and between 1095 feet and 1100 feet. All volumes listed in Table 1 are total volumes including dead storage.

Table 1.
Average Lake Depth Elevations 1076-1085 Feet, 1095-1100 Feet

Elevation (Feet)	Volume (Acre-Feet)	Area (Acres)	Average Depth (Feet)
1076	12,228,830	81,488	150.07
1077	12,310,490	81,828	150.44
1078	12,392,490	82,169	150.82
1079	12,474,830	82,509	151.19
1080	12,557,510	82,849	151.57
1081	12,640,530	83,167	151.99
1082	12,723,910	83,485	152.41
1083	12,807,630	83,802	152.83
1084	12,891,710	84,120	153.25
1085	12,976,140	84,438	153.68
1095	13,839,650	87,616	157.96
1096	13,927,405	87,924	158.40
1097	14,015,478	88,241	158.83
1098	14,103,879	88,574	159.23
1099	14,192,599	88,904	159.64
1100	14,281,708	89,300	159.93

The purpose of Table 1 is to show the increase in depth per foot is reasonably constant when over the elevations where interpolation of the area table was necessary. As a result of this fact and the smooth transition from elevation 1094.9 to 1095.0 feet in the volume table volume table it was determined that no interpolation was necessary in the volume table.

Elevation 1095.0 feet to 1230 feet

Values for this table in this elevation range were calculated from the 2009 LiDAR data sets. The volume command in ArcInfo was used in a macro to step through each data set at 0.1-foot increments to calculate the area and volume.

Notable Sediment Accumulation

One observation was made during the analysis of the LiDAR data. At the north end of the Overton Arm along the Virgin River the 1230 foot contour had moved south approximately 1.2 miles since the 2001 bathymetry study was completed. It is speculated that this could have happened as a result of the 2005 flood on the Virgin River. Figure 5 shows the change in the 1230 foot contour in this part of Lake Mead.
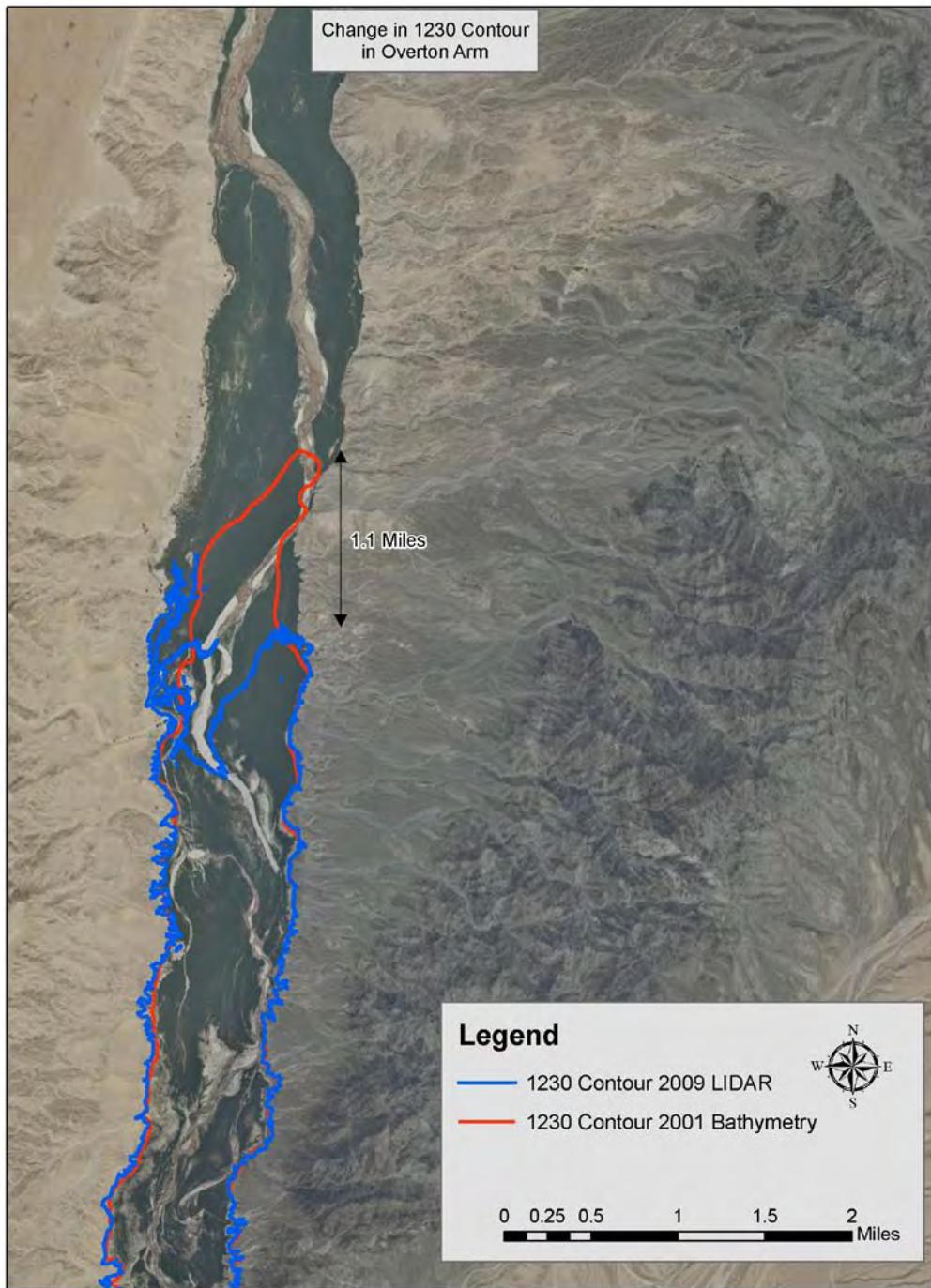
Figure 5.
Change in 1230 foot contour

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Summary

The total area of Lake Mead at the 1230 foot contour for the various studies is summarized below.

1963 (currently being used)	2001 (bathymetry data incorporated)	2009 (LiDAR data incorporated)
163,224 acres	163,223 acres	163,504 acres

The total volume of Lake Mead (including dead storage) up to elevation 1230 feet for the various studies is summarized below.

1963 (currently being used)	2001 (bathymetry data incorporated)	2009 (LiDAR data incorporated)
29,922,780 acre-feet	30,141,900 acre-feet	30,330,020 acre-feet

The live capacity for Lake Mead (between dead storage elevation of 895 feet and spillway elevation of 1229 feet) is summarized below

1963 (currently being used)	2001 (bathymetry data incorporated)	2009 (LiDAR data incorporated)
27,380,059 acre-feet	27,432,478 acre-feet	27,620,294 acre-feet

The development of these area-capacity tables was completed using the results of the 2001 Lake Mead bathymetry study along with LiDAR data collected in 2009. The LiDAR data provided very detailed topography for the exposed lake shore from elevation 1095 feet to 1230 feet. The bathymetry data provided topographic detail along the original river channel. These two data sets were used to fine tune the area-capacity tables developed in 1963, as well as account for some changing conditions in the lake (2005 flood event on the Virgin River). Interpolation of the area values was done on the area values between elevation 1080 feet and 1094.9 feet to provide a smoother transition to the more accurate LiDAR data. Overall, areas and volumes calculated after incorporation of the LiDAR data were within a few percent of the values determined in the 2001 bathymetry study.

Between 2001 and 2009 the lake decreased about 100 feet in elevation. Due to this decrease in elevation, there has likely been erosion of existing sediments resulting in transport of sediment down-lake. Any re-distribution of under-water sediments over the last eight years were not captured in the 2009 LiDAR survey.

Lake Mead storage is constantly evolving over time. While major events such as the 2005 flood on the Virgin River can be seen, minor, continual changes such as the inflow of sediment from the Grand Canyon, the effects of landslides along the canyon areas of the lake, or transport of sediment due to lower lake levels are much more subtle and difficult to track. This report does not attempt to account for the minor, continual changes in Lake Mead. It was also assumed that

additional sediment inflow into Lake Mead between 2001 and 2009 was small compared to the overall volume of the lake.

Appendices

Appendix I: 10-Foot Contour Areas in Acres

Sheet	660	670	680	690	700	710	720	730	740	750	760	770	780	790	800
1,2,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	76.84	269.97	400.65	457.4	506.3	548.8	586.7	621
5	0	0	0	0	0	0	0	329.28	551.65	754.17	813.95	858.84	913.62	998.06	1,142.80
6,7	0	0	0	0	0	0	0	46.29	987.44	1,873.93	2,355.17	2,662.51	2,828.78	2,978.71	3,123.76
8	0	0	0	0.02	0.47	3.9	53.69	897.15	1,339.46	1,621.83	1,677.21	1,734.17	1,790.08	1,852.62	1,907.14
9	0	0	0	0	0	0	0	0.03	13.16	128.95	607.48	734.58	765.77	795.09	824.35
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11,12	0	0	0	0	0	0.03	0.16	0.39	0.67	1.21	73.08	410.62	1,236.24	1,423.30	1,553.69
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156.42
19	0	0	0	0	0	0	0	0	0	0	0.4	1.32	139.87	1,025.85	3,085.51
20,21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0.62	547.91
27	0	0	0	0	0	0	0	0	0	0	0	0	0	3.35	303.19
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51															
52															
Total	0	0	0	0.02	0.47	3.94	53.87	1,349.98	3,162.35	4,780.75	5,984.68	6,908.34	8,223.16	9,664.30	13,265.77

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Sheet	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950
1,2,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	665.6	720	771	820.1	871.6	934.2	1,011.50	1,102.60	1,205.30	1,312.70	1,444.10	1,580.10	1,723.00	1,859.20	1,988.70
5	1,288.78	1,422.75	1,577.07	1,719.89	1,862.11	2,006.37	2,197.14	2,318.83	2,503.16	2,710.80	2,940.59	3,099.03	3,235.06	3,423.35	3,636.03
6,7	3,273.92	3,407.43	3,541.45	3,698.77	3,858.52	4,034.51	4,213.40	4,433.06	4,608.68	4,727.52	4,918.80	5,094.28	5,276.14	5,485.66	5,640.54
8	1,965.81	2,031.74	2,089.03	2,147.32	2,211.16	2,279.50	2,341.28	2,403.01	2,455.15	2,512.82	2,587.73	2,643.16	2,690.08	2,757.98	2,816.12
9	870.59	918.26	956.16	993.69	1,045.35	1,098.46	1,151.75	1,206.41	1,261.06	1,318.28	1,385.41	1,455.04	1,520.45	1,578.76	1,638.30
10															
11,12	1,650.14	1,728.29	1,809.59	1,873.10	1,946.31	2,021.43	2,088.52	2,163.52	2,253.84	2,338.08	2,456.98	2,533.51	2,620.56	2,689.11	2,772.36
14															
15															
16															
17															
18	319.11	499.46	635.73	798.29	901.72	998.58	1,066.86	1,149.05	1,190.72	1,225.00	1,313.95	1,360.66	1,441.79	1,513.57	1,586.55
19	3,535.90	4,034.76	4,380.65	4,637.82	5,025.43	5,301.62	5,449.20	5,758.26	5,983.84	6,203.50	6,445.21	6,688.94	6,901.47	7,134.02	7,349.67
20,21															
22															
23															
24															
25									2.32	60.1	128.2	188.6	319.2	473.2	678.2	989.4
26	817.64	1,008.90	1,069.00	1,167.20	1,272.80	1,422.60	1,620.80	1,771.95	1,912.45	2,057.28	2,228.68	2,381.62	2,528.41	2,672.27	2,835.28
27	846.99	1,214.39	1,373.38	1,516.04	1,804.83	1,998.98	2,159.17	2,327.55	2,517.89	2,695.22	2,938.69	3,319.14	3,727.00	3,998.30	4,218.70
28															
30															
31															
32															
33															
34	0.08	101.14	326.7	371.3	396.61	418.52	453.2	478.99	510.19	544.53	596.56	643.33	700.13	746.46	808.94
35	0	0.03	193.19	812.56	1,342.20	1,607.14	1,734.94	1,873.57	2,036.65	2,206.25	2,372.14	2,513.49	2,669.70	2,828.77	3,004.62
36	0	0	0.7	1.21	1.81	173.29	386.12	454.84	498.56	509.53	529.81	578.21	605.73	634.7	665.2
37	0	0	0	0	0	0	0	0	1.87	3.53	5.51	19.23	154.18	479.79	771.55
38	0	0	0	0	0	0.6	3.08	59.24	191.93	659.2	1,211.92	1,693.24	1,936.46	2,046.41	2,146.96
39															
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43								0	0	0	0	0	0	0	0
44										0	0	0	0	0	0
45															
46													0	0	0
47															
48															
49															
50															
51															
52															
Total	15,234.55	17,087.14	18,723.65	20,557.29	22,540.45	24,295.79	25,876.97	27,503.20	29,191.39	31,152.43	33,564.68	35,922.18	38,203.36	40,526.55	42,868.91

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Appendix I: 10-Foot Contour Areas in Acres

Sheet	960	970	980	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
1,2,3								4.5	24.3	46.4	76.4	109.2	145.4	197.8
4	2,142.00	2,296.40	2,475.70	2,666.30	2,869.00	3,067.50	3,286.40	3,519.95	3,739.29	3,978.76	4,221.40	4,434.55	4,658.49	4,906.59
5	3,828.17	4,014.64	4,168.55	4,343.44	4,484.45	4,714.97	4,876.11	5,014.37	5,148.99	5,290.08	5,419.92	5,510.58	5,616.46	5,751.28
6,7	5,817.96	5,989.21	6,157.86	6,293.96	6,435.16	6,603.63	6,769.31	6,940.60	7,123.96	7,286.93	7,476.59	7,659.63	7,838.72	8,041.90
8	2,879.64	2,936.30	2,999.47	3,061.14	3,144.25	3,208.44	3,263.76	3,322.21	3,362.06	3,416.20	3,483.80	3,550.74	3,613.71	3,689.97
9	1,710.65	1,781.38	1,850.18	1,906.19	1,965.44	2,047.38	2,126.50	2,196.21	2,260.09	2,331.74	2,410.99	2,488.68	2,565.88	2,633.59
10													1.45	3.55
11,12	2,870.26	2,958.63	3,078.72	3,182.09	3,278.30	3,379.79	3,470.00	3,565.06	3,667.21	3,767.17	3,884.94	3,994.71	4,105.58	4,218.23
14														
15														
16												0.5	1.6	2.1
17												0.46		3.06
18	1,665.87	1,731.99	1,797.87	1,874.74	1,946.04	2,040.84	2,114.78	2,202.87	2,283.71	2,368.15	2,442.06	2,507.12	2,592.42	2,680.49
19	7,625.83	7,895.94	8,156.88	8,420.82	8,734.72	9,095.69	9,449.17	9,803.25	10,155.49	10,469.13	10,732.07	11,024.89	11,317.31	11,600.02
20,21		1.45	25.4	49.88	87.21	119.38	162.56	215.53	270.3	352.61	429.72	502.59	584.19	662.61
22														
23											66.8	541.2	893.4	1,178.70
24			198.65	720.6	1,229.70	1,756.60	2,408.30	2,963.30	3,695.00	4,518.20	5,444.82	5,993.35	6,492.64	6,901.62
25	1,409.70	1,775.30	2,157.99	2,349.73	2,570.31	2,772.34	2,961.07	3,179.57	3,403.60	3,644.20	3,918.79	4,185.91	4,437.74	4,664.09
26	2,995.05	3,156.53	3,320.02	3,489.59	3,655.31	3,842.08	4,021.64	4,234.23	4,449.59	4,640.20	4,823.00	5,030.26	5,230.80	5,398.99
27	4,417.29	4,602.62	4,786.35	4,979.05	5,173.67	5,371.07	5,556.68	5,789.77	5,989.44	6,166.09	6,350.05	6,558.83	6,768.83	7,044.24
28		2.42	4.42	6.93	12.51	17.2	22.74	30.87	37.85	50.35	65.88	83.6	102.75	124.04
30														
31														
32												0	0	0
33														
34	872.27	937.68	987.36	1,045.85	1,111.17	1,187.05	1,253.00	1,330.22	1,404.44	1,484.37	1,578.60	1,666.37	1,756.10	1,866.13
35	3,199.49	3,368.07	3,564.56	3,789.87	4,013.26	4,248.20	4,368.11	4,582.97	4,765.20	4,985.08	5,208.41	5,456.20	5,672.51	5,904.95
36	714.66	729.93	760.99	816.67	830.89	899.44	932.06	975.87	1,017.69	1,060.91	1,104.03	1,137.98	1,177.03	1,192.57
37	1,052.45	1,316.80	1,598.15	1,929.98	2,145.52	2,314.36	2,608.28	2,772.24	2,920.88	3,087.23	3,231.03	3,388.31	3,529.17	3,694.68
38	2,259.66	2,351.30	2,435.74	2,590.77	2,687.41	2,789.50	2,882.70	2,980.04	3,108.18	3,223.87	3,373.38	3,484.70	3,560.73	3,705.63
39														
40	0	0	0	0	0	0	0	0	0	0	0	0	8.12	57.93
41	0	0	0	0	0	0	0	0	6.76	40.26	92.04	136.92	177.64	233.27
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45			0	0	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47				0	0	0	0	0	0	0	0	0	0	0
48			0	0	0	0	0	0	0	0	0	0	0	0
49									0	0	0	0	0	0
50														
51														
52														
Total	45,460.95	47,846.59	50,524.86	53,517.60	56,374.32	59,475.46	62,533.17	65,623.63	68,834.02	72,207.93	75,834.72	79,446.82	82,849.13	86,027.00 [1]

[1] Area at elevation 1090 feet was reinterpolated to 86,027 acres from 86,358.03 acres in order to make a smoother transition for the area at elevation 1080 feet (calculated from bathymetry study) to elevation 1095 feet (calculated from LiDAR study).   The areas for each individual sheet at elev. 1090 were not revised from the bathymetry study so do not add up to 86,027.00.

Appendix I: 10-Foot Contour Areas in Acres

Sheet	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200	1210	1220	1230
1,2,3	238.00	311.95	392.01	481.78	610.17	724.91	846.36	957.18	1082.71	1207.41	1344.97	1504.21	1683.79	1865.17
4	5299.26	5598.40	5884.75	6190.90	6499.16	6777.88	7088.37	7389.40	7693.24	7958.41	8227.16	8504.38	8745.32	8971.02
5	6090.49	6223.05	6344.15	6480.11	6624.68	6773.86	6929.45	7090.51	7269.23	7451.93	7658.67	7854.59	8025.55	8213.09
6,7	8322.38	8501.80	8654.58	8828.98	9011.44	9174.64	9350.60	9525.20	9721.40	9907.42	10103.23	10303.75	10488.24	10674.23
8	3641.62	3706.05	3764.87	3827.98	3889.98	3948.11	4008.98	4068.86	4131.87	4191.49	4250.51	4312.48	4365.30	4417.51
9	2722.28	2803.67	2878.34	2957.26	3037.01	3111.56	3190.00	3268.95	3352.70	3434.49	3519.26	3608.57	3688.57	3770.51
10	5.56	7.82	10.68	13.46	17.03	20.83	25.95	31.59	39.13	47.50	56.96	66.90	77.19	88.94
11,12	4430.615	4549.989	4652.947	4773.640	4889.210	4998.114	5109.892	5216.359	5337.568	5458.272	5579.627	5707.148	5839.954	5971.679
14	-	-	-	-	-	-	-	-	-	-	-	0.86	75.69	410.57
15	-	-	-	-	-	-	-	-	-	-	-	0.03	33.90	53.76
16	34.84	84.17	147.75	215.21	292.27	364.93	444.93	524.80	629.25	734.89	851.92	979.79	1099.52	1217.50
17	27.56	56.18	102.75	150.87	196.78	255.77	341.55	441.95	572.59	712.93	844.80	971.89	1092.46	1212.53
18	2849.15	2932.82	3007.42	3100.78	3188.49	3267.43	3353.45	3431.52	3521.21	3602.64	3684.62	3770.88	3846.10	3920.82
19	11845.50	12151.27	12425.80	12778.75	13123.64	13512.85	13884.16	14260.75	14660.22	15006.31	15346.27	15696.73	15935.22	16138.19
20,21	702.29	795.10	865.82	944.12	1038.15	1142.58	1285.18	1454.31	1645.34	1831.89	2034.54	2287.03	2554.60	2872.53
22	-	-	-	-	-	-	0.44	132.85	407.13	788.57	1341.52	1996.82	2646.90	3095.07
23	1473.80	1882.16	2381.04	2710.49	3265.56	4018.25	4605.07	5425.98	6095.83	6577.85	6996.04	7436.83	7795.17	8137.43
24	7089.93	7424.15	7746.80	8089.81	8432.86	8752.96	9097.92	9474.52	9859.63	10222.66	10566.19	10914.03	11186.84	11422.42
25	4973.27	5231.33	5469.34	5733.53	5998.86	6249.23	6494.68	6727.28	6970.83	7211.94	7455.28	7703.99	7925.82	8148.00
26	5440.95	5611.07	5762.73	5926.65	6085.86	6239.47	6395.76	6550.48	6707.45	6866.25	7023.87	7181.12	7333.61	7474.01
27	7180.23	7389.54	7565.34	7758.03	7959.94	8169.11	8411.66	8666.95	8962.14	9244.16	9544.78	9884.30	10185.43	10482.33
28	158.85	193.97	232.18	274.27	316.70	361.58	413.62	463.83	523.62	585.76	649.62	717.23	790.85	875.09
30														
31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.28	74.25	93.07	137.80	271.01	455.17	750.50
32	17.86	40.78	68.37	118.32	216.87	318.61	449.71	667.83	773.14	862.45	946.83	1053.62	1170.73	1306.45
33	0.269	26.440	58.706	107.274	151.965	211.423	285.405	365.311	457.191	552.446	652.180	752.751	857.174	957.499
34	1896.40	1999.38	2091.85	2190.24	2293.52	2389.73	2486.41	2578.80	2675.00	2766.19	2857.65	2954.40	3039.89	3125.17
35	6202.78	6429.13	6640.54	6857.72	7064.15	7252.35	7458.41	7654.48	7864.09	8069.28	8276.55	8492.47	8684.96	8887.71
36	1311.79	1361.27	1409.73	1461.65	1514.05	1565.15	1623.75	1683.05	1750.28	1818.26	1891.30	1971.77	2054.86	2147.72
37	3492.66	3939.87	4160.22	4357.73	4518.55	4665.93	4829.87	4992.63	5163.69	5325.80	5487.25	5651.37	5802.32	5945.39
38	3851.51	3990.90	4115.00	4243.07	4368.48	4481.64	4600.18	4709.66	4824.99	4924.24	5021.29	5118.69	5209.70	5299.63
39	-	-	-	-	-	-	-	-	-	0.00	8.67	38.29	82.39	115.30
40	-	86.32	318.72	611.23	1969.43	2689.78	3223.35	3547.10	3753.81	3937.98	4110.35	4265.40	4405.85	4547.22
41	-	90.60	108.84	177.90	245.81	253.90	262.25	272.03	286.61	305.92	338.96	376.84	416.59	459.16
42	-	-	-	60.38	134.28	170.89	310.73	587.40	840.69	899.63	961.48	1022.55	1074.94	1129.99
43	-	-	-	55.14	145.94	420.71	647.02	1556.15	3017.75	4164.23	4715.16	4946.26	5142.16	5331.35
44	-	-	-	-	-	-	204.23	219.88	236.78	281.22	758.36	904.99	935.04	962.71
45	-	-	-	-	-	-	21.61	251.16	292.06	341.24	552.64	1,013.35	1,076.31	1116.57
46	-	-	-	-	18.69	38.89	209.20	243.14	265.03	286.62	311.62	333.21	353.41	374.71
47	-	-	-	-	-	-	103.60	225.89	326.58	368.04	431.69	467.79	495.98	524.29
48	-	-	-	-	-	-	-	-	6.77	206.22	293.92	399.17	433.41	461.39
49	-	-	-	-	-	-	-	-	-	-	0.52	394.56	448.38	485.04
50	-	-	-	-	-	-	-	-	-	-	0.03	108.82	127.64	143.76
51														
52														
Total	89,299.86	93,419.18	97,261.27	101,477.27	107,119.54	112,323.06	117,993.74	124,673.05	131,791.78	138,245.64	144,834.12	151,940.85	157,682.94	163,503.99

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2009 Lake Mead – Boulder City, Nevada

Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
689	0	0	0	0	0	0	0	0	0	0
690	0	0	0	0	0	0	0	0	0	0
691	0	0	0	0	0	0	0	0	0	0
692	0	0	0	0	0	0	0	0	0	0
693	0	0	0	0	0	0	0	0	0	0
694	0	0	0	0	0	0	0	0	0	0
695	0	0	0	0	0	0	0	0	0	0
696	0	0	0	0	0	0	0	0	0	0
697	0	0	0	0	0	0	0	0	0	0
698	0	0	0	0	0	0	0	0	0	0
699	0	0	0	0	0	0	0	0	0	0
700	0	1	1	1	1	1	1	1	1	1
701	1	1	1	1	1	1	1	1	1	1
702	1	1	1	1	1	1	1	1	1	1
703	2	2	2	2	2	2	2	2	2	2
704	2	2	2	2	2	2	2	2	2	2
705	2	2	2	2	2	2	2	2	2	3
706	3	3	3	3	3	3	3	3	3	3
707	3	3	3	3	3	3	3	3	3	3
708	3	3	3	3	3	3	3	3	4	4
709	4	4	4	4	4	4	4	4	4	4
710	4	4	5	5	6	6	7	7	8	8
711	9	9	10	10	11	11	12	12	13	13
712	14	14	15	15	16	16	17	17	18	18
713	19	19	20	20	21	21	22	22	23	23
714	24	24	25	25	26	26	27	27	28	28
715	29	29	30	30	31	31	32	32	33	33
716	34	34	35	35	36	36	37	37	38	38
717	39	39	40	40	41	41	42	42	43	43
718	44	44	45	45	46	46	47	47	48	48
719	49	49	50	50	51	51	52	52	53	53
720	54	67	80	93	106	119	132	145	158	171
721	183	196	209	222	235	248	261	274	287	300
722	313	326	339	352	365	378	391	404	417	430
723	443	456	469	482	495	508	520	533	546	559
724	572	585	598	611	624	637	650	663	676	689

2009 Lake Mead – Boulder City, Nevada

Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
725	702	715	728	741	754	767	780	793	806	819
726	832	844	857	870	883	896	909	922	935	948
727	961	974	987	1,000	1,013	1,026	1,039	1,052	1,065	1,078
728	1,091	1,104	1,117	1,130	1,143	1,156	1,169	1,181	1,194	1,207
729	1,220	1,233	1,246	1,259	1,272	1,285	1,298	1,311	1,324	1,337
730	1,350	1,368	1,386	1,404	1,422	1,441	1,459	1,477	1,495	1,513
731	1,531	1,549	1,567	1,586	1,604	1,622	1,640	1,658	1,676	1,694
732	1,712	1,731	1,749	1,767	1,785	1,803	1,821	1,839	1,857	1,876
733	1,894	1,912	1,930	1,948	1,966	1,984	2,002	2,021	2,039	2,057
734	2,075	2,093	2,111	2,129	2,147	2,166	2,184	2,202	2,220	2,238
735	2,256	2,274	2,292	2,311	2,329	2,347	2,365	2,383	2,401	2,419
736	2,437	2,456	2,474	2,492	2,510	2,528	2,546	2,564	2,582	2,601
737	2,619	2,637	2,655	2,673	2,691	2,709	2,727	2,746	2,764	2,782
738	2,800	2,818	2,836	2,854	2,872	2,890	2,909	2,927	2,945	2,963
739	2,981	2,999	3,017	3,035	3,054	3,072	3,090	3,108	3,126	3,144
740	3,162	3,179	3,195	3,211	3,227	3,243	3,259	3,276	3,292	3,308
741	3,324	3,340	3,357	3,373	3,389	3,405	3,421	3,437	3,454	3,470
742	3,486	3,502	3,518	3,535	3,551	3,567	3,583	3,599	3,616	3,632
743	3,648	3,664	3,680	3,696	3,713	3,729	3,745	3,761	3,777	3,794
744	3,810	3,826	3,842	3,858	3,874	3,891	3,907	3,923	3,939	3,955
745	3,972	3,988	4,004	4,020	4,036	4,052	4,069	4,085	4,101	4,117
746	4,133	4,150	4,166	4,182	4,198	4,214	4,230	4,247	4,263	4,279
747	4,295	4,311	4,328	4,344	4,360	4,376	4,392	4,409	4,425	4,441
748	4,457	4,473	4,489	4,506	4,522	4,538	4,554	4,570	4,587	4,603
749	4,619	4,635	4,651	4,667	4,684	4,700	4,716	4,732	4,748	4,765
750	4,781	4,793	4,805	4,817	4,829	4,841	4,853	4,865	4,877	4,889
751	4,901	4,913	4,925	4,937	4,949	4,961	4,973	4,985	4,997	5,009
752	5,022	5,034	5,046	5,058	5,070	5,082	5,094	5,106	5,118	5,130
753	5,142	5,154	5,166	5,178	5,190	5,202	5,214	5,226	5,238	5,250
754	5,262	5,274	5,286	5,298	5,310	5,323	5,335	5,347	5,359	5,371
755	5,383	5,395	5,407	5,419	5,431	5,443	5,455	5,467	5,479	5,491
756	5,503	5,515	5,527	5,539	5,551	5,563	5,575	5,587	5,599	5,611
757	5,624	5,636	5,648	5,660	5,672	5,684	5,696	5,708	5,720	5,732
758	5,744	5,756	5,768	5,780	5,792	5,804	5,816	5,828	5,840	5,852
759	5,864	5,876	5,888	5,900	5,912	5,924	5,937	5,949	5,961	5,973

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
760	5,985	5,994	6,003	6,012	6,022	6,031	6,040	6,049	6,059	6,068
761	6,077	6,086	6,096	6,105	6,114	6,123	6,132	6,142	6,151	6,160
762	6,169	6,179	6,188	6,197	6,206	6,216	6,225	6,234	6,243	6,253
763	6,262	6,271	6,280	6,289	6,299	6,308	6,317	6,326	6,336	6,345
764	6,354	6,363	6,373	6,382	6,391	6,400	6,410	6,419	6,428	6,437
765	6,447	6,456	6,465	6,474	6,483	6,493	6,502	6,511	6,520	6,530
766	6,539	6,548	6,557	6,567	6,576	6,585	6,594	6,604	6,613	6,622
767	6,631	6,640	6,650	6,659	6,668	6,677	6,687	6,696	6,705	6,714
768	6,724	6,733	6,742	6,751	6,761	6,770	6,779	6,788	6,798	6,807
769	6,816	6,825	6,834	6,844	6,853	6,862	6,871	6,881	6,890	6,899
770	6,908	6,921	6,935	6,948	6,961	6,974	6,987	7,000	7,014	7,027
771	7,040	7,053	7,066	7,079	7,092	7,106	7,119	7,132	7,145	7,158
772	7,171	7,184	7,198	7,211	7,224	7,237	7,250	7,263	7,276	7,290
773	7,303	7,316	7,329	7,342	7,355	7,369	7,382	7,395	7,408	7,421
774	7,434	7,447	7,461	7,474	7,487	7,500	7,513	7,526	7,539	7,553
775	7,566	7,579	7,592	7,605	7,618	7,631	7,645	7,658	7,671	7,684
776	7,697	7,710	7,724	7,737	7,750	7,763	7,776	7,789	7,802	7,816
777	7,829	7,842	7,855	7,868	7,881	7,894	7,908	7,921	7,934	7,947
778	7,960	7,973	7,986	8,000	8,013	8,026	8,039	8,052	8,065	8,079
779	8,092	8,105	8,118	8,131	8,144	8,157	8,171	8,184	8,197	8,210
780	8,223	8,238	8,252	8,266	8,281	8,295	8,310	8,324	8,338	8,353
781	8,367	8,382	8,396	8,411	8,425	8,439	8,454	8,468	8,483	8,497
782	8,511	8,526	8,540	8,555	8,569	8,583	8,598	8,612	8,627	8,641
783	8,656	8,670	8,684	8,699	8,713	8,728	8,742	8,756	8,771	8,785
784	8,800	8,814	8,828	8,843	8,857	8,872	8,886	8,900	8,915	8,929
785	8,944	8,958	8,973	8,987	9,001	9,016	9,030	9,045	9,059	9,073
786	9,088	9,102	9,117	9,131	9,145	9,160	9,174	9,189	9,203	9,218
787	9,232	9,246	9,261	9,275	9,290	9,304	9,318	9,333	9,347	9,362
788	9,376	9,390	9,405	9,419	9,434	9,448	9,463	9,477	9,491	9,506
789	9,520	9,535	9,549	9,563	9,578	9,592	9,607	9,621	9,635	9,650
790	9,664	9,700	9,736	9,772	9,808	9,844	9,880	9,916	9,952	9,988
791	10,024	10,060	10,096	10,132	10,169	10,205	10,241	10,277	10,313	10,349
792	10,385	10,421	10,457	10,493	10,529	10,565	10,601	10,637	10,673	10,709
793	10,745	10,781	10,817	10,853	10,889	10,925	10,961	10,997	11,033	11,069
794	11,105	11,141	11,177	11,213	11,249	11,285	11,321	11,357	11,393	11,429

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
795	11,465	11,501	11,537	11,573	11,609	11,645	11,681	11,717	11,753	11,789
796	11,825	11,861	11,897	11,933	11,969	12,005	12,041	12,077	12,113	12,149
797	12,185	12,221	12,257	12,293	12,329	12,365	12,401	12,437	12,473	12,509
798	12,545	12,581	12,618	12,654	12,690	12,726	12,762	12,798	12,834	12,870
799	12,906	12,942	12,978	13,014	13,050	13,086	13,122	13,158	13,194	13,230
800	13,266	13,285	13,305	13,325	13,345	13,364	13,384	13,404	13,423	13,443
801	13,463	13,482	13,502	13,522	13,541	13,561	13,581	13,600	13,620	13,640
802	13,660	13,679	13,699	13,719	13,738	13,758	13,778	13,797	13,817	13,837
803	13,856	13,876	13,896	13,915	13,935	13,955	13,975	13,994	14,014	14,034
804	14,053	14,073	14,093	14,112	14,132	14,152	14,171	14,191	14,211	14,230
805	14,250	14,270	14,290	14,309	14,329	14,349	14,368	14,388	14,408	14,427
806	14,447	14,467	14,486	14,506	14,526	14,545	14,565	14,585	14,605	14,624
807	14,644	14,664	14,683	14,703	14,723	14,742	14,762	14,782	14,801	14,821
808	14,841	14,860	14,880	14,900	14,920	14,939	14,959	14,979	14,998	15,018
809	15,038	15,057	15,077	15,097	15,116	15,136	15,156	15,175	15,195	15,215
810	15,235	15,253	15,272	15,290	15,309	15,327	15,346	15,364	15,383	15,401
811	15,420	15,438	15,457	15,475	15,494	15,512	15,531	15,549	15,568	15,587
812	15,605	15,624	15,642	15,661	15,679	15,698	15,716	15,735	15,753	15,772
813	15,790	15,809	15,827	15,846	15,864	15,883	15,901	15,920	15,939	15,957
814	15,976	15,994	16,013	16,031	16,050	16,068	16,087	16,105	16,124	16,142
815	16,161	16,179	16,198	16,216	16,235	16,253	16,272	16,291	16,309	16,328
816	16,346	16,365	16,383	16,402	16,420	16,439	16,457	16,476	16,494	16,513
817	16,531	16,550	16,568	16,587	16,605	16,624	16,643	16,661	16,680	16,698
818	16,717	16,735	16,754	16,772	16,791	16,809	16,828	16,846	16,865	16,883
819	16,902	16,920	16,939	16,957	16,976	16,995	17,013	17,032	17,050	17,069
820	17,087	17,104	17,120	17,136	17,153	17,169	17,185	17,202	17,218	17,234
821	17,251	17,267	17,284	17,300	17,316	17,333	17,349	17,365	17,382	17,398
822	17,414	17,431	17,447	17,464	17,480	17,496	17,513	17,529	17,545	17,562
823	17,578	17,594	17,611	17,627	17,644	17,660	17,676	17,693	17,709	17,725
824	17,742	17,758	17,774	17,791	17,807	17,824	17,840	17,856	17,873	17,889
825	17,905	17,922	17,938	17,954	17,971	17,987	18,004	18,020	18,036	18,053
826	18,069	18,085	18,102	18,118	18,135	18,151	18,167	18,184	18,200	18,216
827	18,233	18,249	18,265	18,282	18,298	18,315	18,331	18,347	18,364	18,380
828	18,396	18,413	18,429	18,445	18,462	18,478	18,495	18,511	18,527	18,544
829	18,560	18,576	18,593	18,609	18,625	18,642	18,658	18,675	18,691	18,707

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Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
830	18,724	18,742	18,760	18,779	18,797	18,815	18,834	18,852	18,870	18,889
831	18,907	18,925	18,944	18,962	18,980	18,999	19,017	19,035	19,054	19,072
832	19,090	19,109	19,127	19,145	19,164	19,182	19,200	19,219	19,237	19,255
833	19,274	19,292	19,310	19,329	19,347	19,365	19,384	19,402	19,420	19,439
834	19,457	19,475	19,494	19,512	19,530	19,549	19,567	19,585	19,604	19,622
835	19,640	19,659	19,677	19,695	19,714	19,732	19,750	19,769	19,787	19,805
836	19,824	19,842	19,861	19,879	19,897	19,916	19,934	19,952	19,971	19,989
837	20,007	20,026	20,044	20,062	20,081	20,099	20,117	20,136	20,154	20,172
838	20,191	20,209	20,227	20,246	20,264	20,282	20,301	20,319	20,337	20,356
839	20,374	20,392	20,411	20,429	20,447	20,466	20,484	20,502	20,521	20,539
840	20,557	20,577	20,597	20,617	20,637	20,656	20,676	20,696	20,716	20,736
841	20,756	20,775	20,795	20,815	20,835	20,855	20,875	20,894	20,914	20,934
842	20,954	20,974	20,994	21,013	21,033	21,053	21,073	21,093	21,113	21,132
843	21,152	21,172	21,192	21,212	21,232	21,251	21,271	21,291	21,311	21,331
844	21,351	21,370	21,390	21,410	21,430	21,450	21,470	21,489	21,509	21,529
845	21,549	21,569	21,589	21,608	21,628	21,648	21,668	21,688	21,708	21,727
846	21,747	21,767	21,787	21,807	21,827	21,846	21,866	21,886	21,906	21,926
847	21,946	21,965	21,985	22,005	22,025	22,045	22,064	22,084	22,104	22,124
848	22,144	22,164	22,183	22,203	22,223	22,243	22,263	22,283	22,302	22,322
849	22,342	22,362	22,382	22,402	22,421	22,441	22,461	22,481	22,501	22,521
850	22,540	22,558	22,576	22,593	22,611	22,628	22,646	22,663	22,681	22,698
851	22,716	22,734	22,751	22,769	22,786	22,804	22,821	22,839	22,856	22,874
852	22,892	22,909	22,927	22,944	22,962	22,979	22,997	23,014	23,032	23,049
853	23,067	23,085	23,102	23,120	23,137	23,155	23,172	23,190	23,207	23,225
854	23,243	23,260	23,278	23,295	23,313	23,330	23,348	23,365	23,383	23,401
855	23,418	23,436	23,453	23,471	23,488	23,506	23,523	23,541	23,559	23,576
856	23,594	23,611	23,629	23,646	23,664	23,681	23,699	23,717	23,734	23,752
857	23,769	23,787	23,804	23,822	23,839	23,857	23,875	23,892	23,910	23,927
858	23,945	23,962	23,980	23,997	24,015	24,032	24,050	24,068	24,085	24,103
859	24,120	24,138	24,155	24,173	24,190	24,208	24,226	24,243	24,261	24,278
860	24,296	24,312	24,327	24,343	24,359	24,375	24,391	24,406	24,422	24,438
861	24,454	24,470	24,486	24,501	24,517	24,533	24,549	24,565	24,580	24,596
862	24,612	24,628	24,644	24,659	24,675	24,691	24,707	24,723	24,739	24,754
863	24,770	24,786	24,802	24,818	24,833	24,849	24,865	24,881	24,897	24,912
864	24,928	24,944	24,960	24,976	24,992	25,007	25,023	25,039	25,055	25,071

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
865	25,086	25,102	25,118	25,134	25,150	25,165	25,181	25,197	25,213	25,229
866	25,244	25,260	25,276	25,292	25,308	25,324	25,339	25,355	25,371	25,387
867	25,403	25,418	25,434	25,450	25,466	25,482	25,497	25,513	25,529	25,545
868	25,561	25,577	25,592	25,608	25,624	25,640	25,656	25,671	25,687	25,703
869	25,719	25,735	25,750	25,766	25,782	25,798	25,814	25,830	25,845	25,861
870	25,877	25,893	25,910	25,926	25,942	25,958	25,975	25,991	26,007	26,023
871	26,040	26,056	26,072	26,088	26,105	26,121	26,137	26,153	26,170	26,186
872	26,202	26,218	26,235	26,251	26,267	26,284	26,300	26,316	26,332	26,349
873	26,365	26,381	26,397	26,414	26,430	26,446	26,462	26,479	26,495	26,511
874	26,527	26,544	26,560	26,576	26,593	26,609	26,625	26,641	26,658	26,674
875	26,690	26,706	26,723	26,739	26,755	26,771	26,788	26,804	26,820	26,836
876	26,853	26,869	26,885	26,901	26,918	26,934	26,950	26,967	26,983	26,999
877	27,015	27,032	27,048	27,064	27,080	27,097	27,113	27,129	27,145	27,162
878	27,178	27,194	27,210	27,227	27,243	27,259	27,276	27,292	27,308	27,324
879	27,341	27,357	27,373	27,389	27,406	27,422	27,438	27,454	27,471	27,487
880	27,503	27,520	27,537	27,554	27,571	27,588	27,604	27,621	27,638	27,655
881	27,672	27,689	27,706	27,723	27,740	27,756	27,773	27,790	27,807	27,824
882	27,841	27,858	27,875	27,891	27,908	27,925	27,942	27,959	27,976	27,993
883	28,010	28,027	28,043	28,060	28,077	28,094	28,111	28,128	28,145	28,162
884	28,178	28,195	28,212	28,229	28,246	28,263	28,280	28,297	28,314	28,330
885	28,347	28,364	28,381	28,398	28,415	28,432	28,449	28,465	28,482	28,499
886	28,516	28,533	28,550	28,567	28,584	28,601	28,617	28,634	28,651	28,668
887	28,685	28,702	28,719	28,736	28,752	28,769	28,786	28,803	28,820	28,837
888	28,854	28,871	28,888	28,904	28,921	28,938	28,955	28,972	28,989	29,006
889	29,023	29,039	29,056	29,073	29,090	29,107	29,124	29,141	29,158	29,175
890	29,191	29,211	29,231	29,250	29,270	29,289	29,309	29,329	29,348	29,368
891	29,387	29,407	29,427	29,446	29,466	29,486	29,505	29,525	29,544	29,564
892	29,584	29,603	29,623	29,642	29,662	29,682	29,701	29,721	29,740	29,760
893	29,780	29,799	29,819	29,839	29,858	29,878	29,897	29,917	29,937	29,956
894	29,976	29,995	30,015	30,035	30,054	30,074	30,093	30,113	30,133	30,152
895	30,172	30,192	30,211	30,231	30,250	30,270	30,290	30,309	30,329	30,348
896	30,368	30,388	30,407	30,427	30,446	30,466	30,486	30,505	30,525	30,545
897	30,564	30,584	30,603	30,623	30,643	30,662	30,682	30,701	30,721	30,741
898	30,760	30,780	30,799	30,819	30,839	30,858	30,878	30,897	30,917	30,937
899	30,956	30,976	30,996	31,015	31,035	31,054	31,074	31,094	31,113	31,133

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
900	31,152	31,177	31,201	31,225	31,249	31,273	31,297	31,321	31,345	31,370
901	31,394	31,418	31,442	31,466	31,490	31,514	31,538	31,563	31,587	31,611
902	31,635	31,659	31,683	31,707	31,731	31,755	31,780	31,804	31,828	31,852
903	31,876	31,900	31,924	31,948	31,973	31,997	32,021	32,045	32,069	32,093
904	32,117	32,141	32,166	32,190	32,214	32,238	32,262	32,286	32,310	32,334
905	32,359	32,383	32,407	32,431	32,455	32,479	32,503	32,527	32,552	32,576
906	32,600	32,624	32,648	32,672	32,696	32,720	32,745	32,769	32,793	32,817
907	32,841	32,865	32,889	32,913	32,937	32,962	32,986	33,010	33,034	33,058
908	33,082	33,106	33,130	33,155	33,179	33,203	33,227	33,251	33,275	33,299
909	33,323	33,348	33,372	33,396	33,420	33,444	33,468	33,492	33,516	33,541
910	33,565	33,588	33,612	33,635	33,659	33,683	33,706	33,730	33,753	33,777
911	33,800	33,824	33,848	33,871	33,895	33,918	33,942	33,965	33,989	34,013
912	34,036	34,060	34,083	34,107	34,130	34,154	34,178	34,201	34,225	34,248
913	34,272	34,296	34,319	34,343	34,366	34,390	34,413	34,437	34,461	34,484
914	34,508	34,531	34,555	34,578	34,602	34,626	34,649	34,673	34,696	34,720
915	34,743	34,767	34,791	34,814	34,838	34,861	34,885	34,908	34,932	34,956
916	34,979	35,003	35,026	35,050	35,073	35,097	35,121	35,144	35,168	35,191
917	35,215	35,239	35,262	35,286	35,309	35,333	35,356	35,380	35,404	35,427
918	35,451	35,474	35,498	35,521	35,545	35,569	35,592	35,616	35,639	35,663
919	35,686	35,710	35,734	35,757	35,781	35,804	35,828	35,851	35,875	35,899
920	35,922	35,945	35,968	35,991	36,013	36,036	36,059	36,082	36,105	36,128
921	36,150	36,173	36,196	36,219	36,242	36,264	36,287	36,310	36,333	36,356
922	36,378	36,401	36,424	36,447	36,470	36,492	36,515	36,538	36,561	36,584
923	36,607	36,629	36,652	36,675	36,698	36,721	36,743	36,766	36,789	36,812
924	36,835	36,857	36,880	36,903	36,926	36,949	36,972	36,994	37,017	37,040
925	37,063	37,086	37,108	37,131	37,154	37,177	37,200	37,222	37,245	37,268
926	37,291	37,314	37,337	37,359	37,382	37,405	37,428	37,451	37,473	37,496
927	37,519	37,542	37,565	37,587	37,610	37,633	37,656	37,679	37,701	37,724
928	37,747	37,770	37,793	37,816	37,838	37,861	37,884	37,907	37,930	37,952
929	37,975	37,998	38,021	38,044	38,066	38,089	38,112	38,135	38,158	38,181
930	38,203	38,227	38,250	38,273	38,296	38,320	38,343	38,366	38,389	38,412
931	38,436	38,459	38,482	38,505	38,529	38,552	38,575	38,598	38,622	38,645
932	38,668	38,691	38,714	38,738	38,761	38,784	38,807	38,831	38,854	38,877
933	38,900	38,924	38,947	38,970	38,993	39,016	39,040	39,063	39,086	39,109
934	39,133	39,156	39,179	39,202	39,226	39,249	39,272	39,295	39,318	39,342

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
935	39,365	39,388	39,411	39,435	39,458	39,481	39,504	39,528	39,551	39,574
936	39,597	39,621	39,644	39,667	39,690	39,713	39,737	39,760	39,783	39,806
937	39,830	39,853	39,876	39,899	39,923	39,946	39,969	39,992	40,015	40,039
938	40,062	40,085	40,108	40,132	40,155	40,178	40,201	40,225	40,248	40,271
939	40,294	40,317	40,341	40,364	40,387	40,410	40,434	40,457	40,480	40,503
940	40,527	40,550	40,573	40,597	40,620	40,644	40,667	40,691	40,714	40,737
941	40,761	40,784	40,808	40,831	40,854	40,878	40,901	40,925	40,948	40,972
942	40,995	41,018	41,042	41,065	41,089	41,112	41,136	41,159	41,182	41,206
943	41,229	41,253	41,276	41,300	41,323	41,346	41,370	41,393	41,417	41,440
944	41,463	41,487	41,510	41,534	41,557	41,581	41,604	41,627	41,651	41,674
945	41,698	41,721	41,745	41,768	41,791	41,815	41,838	41,862	41,885	41,909
946	41,932	41,955	41,979	42,002	42,026	42,049	42,073	42,096	42,119	42,143
947	42,166	42,190	42,213	42,236	42,260	42,283	42,307	42,330	42,354	42,377
948	42,400	42,424	42,447	42,471	42,494	42,518	42,541	42,564	42,588	42,611
949	42,635	42,658	42,682	42,705	42,728	42,752	42,775	42,799	42,822	42,845
950	42,869	42,895	42,921	42,947	42,973	42,999	43,024	43,050	43,076	43,102
951	43,128	43,154	43,180	43,206	43,232	43,258	43,284	43,310	43,335	43,361
952	43,387	43,413	43,439	43,465	43,491	43,517	43,543	43,569	43,595	43,621
953	43,647	43,672	43,698	43,724	43,750	43,776	43,802	43,828	43,854	43,880
954	43,906	43,932	43,958	43,983	44,009	44,035	44,061	44,087	44,113	44,139
955	44,165	44,191	44,217	44,243	44,269	44,295	44,320	44,346	44,372	44,398
956	44,424	44,450	44,476	44,502	44,528	44,554	44,580	44,606	44,631	44,657
957	44,683	44,709	44,735	44,761	44,787	44,813	44,839	44,865	44,891	44,917
958	44,943	44,968	44,994	45,020	45,046	45,072	45,098	45,124	45,150	45,176
959	45,202	45,228	45,254	45,279	45,305	45,331	45,357	45,383	45,409	45,435
960	45,461	45,485	45,509	45,533	45,556	45,580	45,604	45,628	45,652	45,676
961	45,700	45,723	45,747	45,771	45,795	45,819	45,843	45,867	45,890	45,914
962	45,938	45,962	45,986	46,010	46,034	46,057	46,081	46,105	46,129	46,153
963	46,177	46,200	46,224	46,248	46,272	46,296	46,320	46,344	46,367	46,391
964	46,415	46,439	46,463	46,487	46,511	46,534	46,558	46,582	46,606	46,630
965	46,654	46,678	46,701	46,725	46,749	46,773	46,797	46,821	46,845	46,868
966	46,892	46,916	46,940	46,964	46,988	47,012	47,035	47,059	47,083	47,107
967	47,131	47,155	47,179	47,202	47,226	47,250	47,274	47,298	47,322	47,346
968	47,369	47,393	47,417	47,441	47,465	47,489	47,513	47,536	47,560	47,584
969	47,608	47,632	47,656	47,680	47,703	47,727	47,751	47,775	47,799	47,823

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
970	47,847	47,873	47,900	47,927	47,954	47,981	48,007	48,034	48,061	48,088
971	48,114	48,141	48,168	48,195	48,222	48,248	48,275	48,302	48,329	48,355
972	48,382	48,409	48,436	48,463	48,489	48,516	48,543	48,570	48,597	48,623
973	48,650	48,677	48,704	48,730	48,757	48,784	48,811	48,838	48,864	48,891
974	48,918	48,945	48,971	48,998	49,025	49,052	49,079	49,105	49,132	49,159
975	49,186	49,213	49,239	49,266	49,293	49,320	49,346	49,373	49,400	49,427
976	49,454	49,480	49,507	49,534	49,561	49,587	49,614	49,641	49,668	49,695
977	49,721	49,748	49,775	49,802	49,829	49,855	49,882	49,909	49,936	49,962
978	49,989	50,016	50,043	50,070	50,096	50,123	50,150	50,177	50,203	50,230
979	50,257	50,284	50,311	50,337	50,364	50,391	50,418	50,445	50,471	50,498
980	50,525	50,555	50,585	50,615	50,645	50,674	50,704	50,734	50,764	50,794
981	50,824	50,854	50,884	50,914	50,944	50,974	51,004	51,034	51,064	51,093
982	51,123	51,153	51,183	51,213	51,243	51,273	51,303	51,333	51,363	51,393
983	51,423	51,453	51,483	51,512	51,542	51,572	51,602	51,632	51,662	51,692
984	51,722	51,752	51,782	51,812	51,842	51,872	51,902	51,931	51,961	51,991
985	52,021	52,051	52,081	52,111	52,141	52,171	52,201	52,231	52,261	52,291
986	52,321	52,350	52,380	52,410	52,440	52,470	52,500	52,530	52,560	52,590
987	52,620	52,650	52,680	52,710	52,739	52,769	52,799	52,829	52,859	52,889
988	52,919	52,949	52,979	53,009	53,039	53,069	53,099	53,129	53,158	53,188
989	53,218	53,248	53,278	53,308	53,338	53,368	53,398	53,428	53,458	53,488
990	53,518	53,546	53,575	53,603	53,632	53,660	53,689	53,718	53,746	53,775
991	53,803	53,832	53,860	53,889	53,918	53,946	53,975	54,003	54,032	54,060
992	54,089	54,118	54,146	54,175	54,203	54,232	54,260	54,289	54,317	54,346
993	54,375	54,403	54,432	54,460	54,489	54,517	54,546	54,575	54,603	54,632
994	54,660	54,689	54,717	54,746	54,775	54,803	54,832	54,860	54,889	54,917
995	54,946	54,975	55,003	55,032	55,060	55,089	55,117	55,146	55,174	55,203
996	55,232	55,260	55,289	55,317	55,346	55,374	55,403	55,432	55,460	55,489
997	55,517	55,546	55,574	55,603	55,632	55,660	55,689	55,717	55,746	55,774
998	55,803	55,832	55,860	55,889	55,917	55,946	55,974	56,003	56,032	56,060
999	56,089	56,117	56,146	56,174	56,203	56,231	56,260	56,289	56,317	56,346
1000	56,374	56,405	56,436	56,467	56,498	56,529	56,560	56,591	56,622	56,653
1001	56,684	56,715	56,746	56,777	56,808	56,839	56,870	56,901	56,933	56,964
1002	56,995	57,026	57,057	57,088	57,119	57,150	57,181	57,212	57,243	57,274
1003	57,305	57,336	57,367	57,398	57,429	57,460	57,491	57,522	57,553	57,584
1004	57,615	57,646	57,677	57,708	57,739	57,770	57,801	57,832	57,863	57,894

2009 Lake Mead – Boulder City, Nevada

Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1005	57,925	57,956	57,987	58,018	58,049	58,080	58,111	58,142	58,173	58,204
1006	58,235	58,266	58,297	58,328	58,359	58,390	58,421	58,452	58,483	58,514
1007	58,545	58,576	58,607	58,638	58,669	58,700	58,731	58,762	58,793	58,824
1008	58,855	58,886	58,917	58,948	58,979	59,010	59,041	59,072	59,103	59,134
1009	59,165	59,196	59,227	59,258	59,289	59,320	59,351	59,382	59,413	59,444
1010	59,475	59,506	59,537	59,567	59,598	59,628	59,659	59,690	59,720	59,751
1011	59,781	59,812	59,842	59,873	59,904	59,934	59,965	59,995	60,026	60,056
1012	60,087	60,118	60,148	60,179	60,209	60,240	60,270	60,301	60,332	60,362
1013	60,393	60,423	60,454	60,485	60,515	60,546	60,576	60,607	60,637	60,668
1014	60,699	60,729	60,760	60,790	60,821	60,851	60,882	60,913	60,943	60,974
1015	61,004	61,035	61,065	61,096	61,127	61,157	61,188	61,218	61,249	61,280
1016	61,310	61,341	61,371	61,402	61,432	61,463	61,494	61,524	61,555	61,585
1017	61,616	61,646	61,677	61,708	61,738	61,769	61,799	61,830	61,860	61,891
1018	61,922	61,952	61,983	62,013	62,044	62,075	62,105	62,136	62,166	62,197
1019	62,227	62,258	62,289	62,319	62,350	62,380	62,411	62,441	62,472	62,503
1020	62,533	62,564	62,595	62,626	62,657	62,688	62,719	62,750	62,780	62,811
1021	62,842	62,873	62,904	62,935	62,966	62,997	63,028	63,059	63,089	63,120
1022	63,151	63,182	63,213	63,244	63,275	63,306	63,337	63,368	63,399	63,429
1023	63,460	63,491	63,522	63,553	63,584	63,615	63,646	63,677	63,708	63,738
1024	63,769	63,800	63,831	63,862	63,893	63,924	63,955	63,986	64,017	64,047
1025	64,078	64,109	64,140	64,171	64,202	64,233	64,264	64,295	64,326	64,357
1026	64,387	64,418	64,449	64,480	64,511	64,542	64,573	64,604	64,635	64,666
1027	64,696	64,727	64,758	64,789	64,820	64,851	64,882	64,913	64,944	64,975
1028	65,006	65,036	65,067	65,098	65,129	65,160	65,191	65,222	65,253	65,284
1029	65,315	65,345	65,376	65,407	65,438	65,469	65,500	65,531	65,562	65,593
1030	65,624	65,656	65,688	65,720	65,752	65,784	65,816	65,848	65,880	65,913
1031	65,945	65,977	66,009	66,041	66,073	66,105	66,137	66,169	66,202	66,234
1032	66,266	66,298	66,330	66,362	66,394	66,426	66,458	66,490	66,523	66,555
1033	66,587	66,619	66,651	66,683	66,715	66,747	66,779	66,811	66,844	66,876
1034	66,908	66,940	66,972	67,004	67,036	67,068	67,100	67,133	67,165	67,197
1035	67,229	67,261	67,293	67,325	67,357	67,389	67,421	67,454	67,486	67,518
1036	67,550	67,582	67,614	67,646	67,678	67,710	67,742	67,775	67,807	67,839
1037	67,871	67,903	67,935	67,967	67,999	68,031	68,064	68,096	68,128	68,160
1038	68,192	68,224	68,256	68,288	68,320	68,352	68,385	68,417	68,449	68,481
1039	68,513	68,545	68,577	68,609	68,641	68,673	68,706	68,738	68,770	68,802

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1040	68,834	68,868	68,901	68,935	68,969	69,003	69,036	69,070	69,104	69,138
1041	69,171	69,205	69,239	69,273	69,306	69,340	69,374	69,408	69,441	69,475
1042	69,509	69,543	69,576	69,610	69,644	69,677	69,711	69,745	69,779	69,812
1043	69,846	69,880	69,914	69,947	69,981	70,015	70,049	70,082	70,116	70,150
1044	70,184	70,217	70,251	70,285	70,319	70,352	70,386	70,420	70,454	70,487
1045	70,521	70,555	70,588	70,622	70,656	70,690	70,723	70,757	70,791	70,825
1046	70,858	70,892	70,926	70,960	70,993	71,027	71,061	71,095	71,128	71,162
1047	71,196	71,230	71,263	71,297	71,331	71,364	71,398	71,432	71,466	71,499
1048	71,533	71,567	71,601	71,634	71,668	71,702	71,736	71,769	71,803	71,837
1049	71,871	71,904	71,938	71,972	72,006	72,039	72,073	72,107	72,141	72,174
1050	72,208	72,249	72,285	72,321	72,357	72,393	72,430	72,466	72,502	72,538
1051	72,574	72,611	72,647	72,683	72,719	72,755	72,792	72,828	72,864	72,900
1052	72,936	72,973	73,009	73,045	73,081	73,117	73,154	73,190	73,226	73,262
1053	73,298	73,335	73,371	73,407	73,443	73,479	73,515	73,552	73,588	73,624
1054	73,660	73,696	73,733	73,769	73,805	73,841	73,877	73,914	73,950	73,986
1055	74,022	74,058	74,095	74,131	74,167	74,203	74,239	74,276	74,312	74,348
1056	74,384	74,420	74,457	74,493	74,529	74,565	74,601	74,638	74,674	74,710
1057	74,746	74,782	74,818	74,855	74,891	74,927	74,963	74,999	75,036	75,072
1058	75,108	75,144	75,180	75,217	75,253	75,289	75,325	75,361	75,398	75,434
1059	75,470	75,506	75,542	75,579	75,615	75,651	75,687	75,723	75,760	75,796
1060	75,832	75,868	75,904	75,941	75,977	76,013	76,049	76,085	76,121	76,158
1061	76,194	76,230	76,266	76,302	76,339	76,375	76,411	76,447	76,483	76,520
1062	76,556	76,592	76,628	76,664	76,701	76,737	76,773	76,809	76,845	76,882
1063	76,918	76,954	76,990	77,026	77,063	77,099	77,135	77,171	77,207	77,244
1064	77,280	77,316	77,352	77,388	77,424	77,461	77,497	77,533	77,569	77,605
1065	77,642	77,678	77,714	77,750	77,786	77,823	77,859	77,895	77,931	77,967
1066	78,004	78,040	78,076	78,112	78,148	78,185	78,221	78,257	78,293	78,329
1067	78,366	78,402	78,438	78,474	78,510	78,547	78,583	78,619	78,655	78,691
1068	78,727	78,764	78,800	78,836	78,872	78,908	78,945	78,981	79,017	79,053
1069	79,089	79,126	79,162	79,198	79,234	79,270	79,307	79,343	79,379	79,415
1070	79,451	79,481	79,515	79,549	79,583	79,617	79,651	79,685	79,719	79,753
1071	79,787	79,821	79,855	79,889	79,923	79,957	79,991	80,025	80,059	80,093
1072	80,127	80,161	80,195	80,229	80,263	80,297	80,331	80,365	80,400	80,434
1073	80,468	80,502	80,536	80,570	80,604	80,638	80,672	80,706	80,740	80,774
1074	80,808	80,842	80,876	80,910	80,944	80,978	81,012	81,046	81,080	81,114

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1075	81,148	81,182	81,216	81,250	81,284	81,318	81,352	81,386	81,420	81,454
1076	81,488	81,522	81,556	81,590	81,624	81,658	81,692	81,726	81,760	81,794
1077	81,828	81,862	81,896	81,931	81,965	81,999	82,033	82,067	82,101	82,135
1078	82,169	82,203	82,237	82,271	82,305	82,339	82,373	82,407	82,441	82,475
1079	82,509	82,543	82,577	82,611	82,645	82,679	82,713	82,747	82,781	82,815
1080	82,849	82,881	82,913	82,944	82,976	83,008	83,040	83,071	83,103	83,135
1081	83,167	83,199	83,230	83,262	83,294	83,326	83,357	83,389	83,421	83,453
1082	83,485	83,516	83,548	83,580	83,612	83,644	83,675	83,707	83,739	83,771
1083	83,802	83,834	83,866	83,898	83,930	83,961	83,993	84,025	84,057	84,088
1084	84,120	84,152	84,184	84,216	84,247	84,279	84,311	84,343	84,374	84,406
1085	84,438	84,470	84,502	84,533	84,565	84,597	84,629	84,660	84,692	84,724
1086	84,756	84,788	84,819	84,851	84,883	84,915	84,946	84,978	85,010	85,042
1087	85,074	85,105	85,137	85,169	85,201	85,232	85,264	85,296	85,328	85,360
1088	85,391	85,423	85,455	85,487	85,519	85,550	85,582	85,614	85,646	85,677
1089	85,709	85,741	85,773	85,805	85,836	85,868	85,900	85,932	85,963	85,995
1090	86,027	86,059	86,091	86,122	86,154	86,186	86,218	86,249	86,281	86,313
1091	86,345	86,377	86,408	86,440	86,472	86,504	86,535	86,567	86,599	86,631
1092	86,663	86,694	86,726	86,758	86,790	86,821	86,853	86,885	86,917	86,949
1093	86,980	87,012	87,044	87,076	87,108	87,139	87,171	87,203	87,235	87,266
1094	87,298	87,330	87,362	87,394	87,425	87,457	87,489	87,521	87,552	87,584
1095	87,616	87,646	87,675	87,704	87,732	87,761	87,790	87,818	87,847	87,876
1096	87,924	87,953	87,982	88,011	88,040	88,070	88,099	88,130	88,160	88,190
1097	88,241	88,272	88,303	88,334	88,365	88,400	88,431	88,462	88,493	88,523
1098	88,574	88,605	88,635	88,666	88,696	88,727	88,757	88,787	88,817	88,848
1099	88,904	88,965	88,998	89,029	89,085	89,118	89,149	89,180	89,211	89,242
1100	89,300	89,331	89,363	89,394	89,426	89,458	89,490	89,522	89,554	89,586
1101	89,646	89,679	89,711	89,744	89,776	89,808	89,841	89,873	89,905	89,937
1102	89,970	90,028	90,060	90,092	90,124	90,157	90,190	90,228	90,264	90,298
1103	90,359	90,393	90,428	90,463	90,498	90,532	90,568	90,605	90,643	90,682
1104	90,743	90,778	90,814	90,850	90,902	90,940	90,977	91,014	91,052	91,089
1105	91,126	91,184	91,222	91,260	91,298	91,337	91,376	91,415	91,455	91,494
1106	91,560	91,601	91,645	91,693	91,748	91,788	91,828	91,867	91,905	91,944
1107	92,006	92,045	92,084	92,124	92,164	92,205	92,247	92,288	92,329	92,371
1108	92,447	92,489	92,532	92,579	92,633	92,678	92,750	92,792	92,834	92,876
1109	92,963	93,004	93,045	93,086	93,126	93,166	93,205	93,244	93,283	93,322

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1110	93,419	93,459	93,498	93,538	93,594	93,635	93,673	93,711	93,748	93,785
1111	93,886	93,922	93,958	93,994	94,029	94,064	94,099	94,133	94,167	94,201
1112	94,285	94,318	94,352	94,387	94,440	94,474	94,507	94,539	94,572	94,604
1113	94,686	94,719	94,752	94,785	94,818	94,851	94,884	94,917	94,950	94,983
1114	95,056	95,090	95,124	95,159	95,207	95,244	95,280	95,316	95,352	95,389
1115	95,460	95,497	95,533	95,570	95,607	95,644	95,681	95,719	95,755	95,792
1116	95,859	95,894	95,931	95,968	96,021	96,057	96,092	96,126	96,160	96,193
1117	96,253	96,286	96,319	96,352	96,384	96,415	96,447	96,478	96,509	96,540
1118	96,571	96,626	96,657	96,688	96,718	96,749	96,780	96,812	96,844	96,875
1119	96,928	96,960	96,991	97,022	97,053	97,085	97,116	97,148	97,179	97,211
1120	97,261	97,293	97,325	97,357	97,390	97,422	97,455	97,488	97,521	97,555
1121	97,589	97,640	97,674	97,708	97,743	97,778	97,814	97,852	97,890	97,927
1122	97,983	98,021	98,058	98,096	98,134	98,172	98,211	98,250	98,291	98,332
1123	98,389	98,430	98,471	98,510	98,550	98,588	98,627	98,667	98,706	98,746
1124	98,805	98,845	98,885	98,925	98,999	99,043	99,085	99,127	99,170	99,212
1125	99,275	99,318	99,361	99,404	99,446	99,489	99,531	99,573	99,615	99,657
1126	99,721	99,764	99,808	99,851	99,925	99,968	100,008	100,049	100,088	100,128
1127	100,192	100,232	100,272	100,312	100,351	100,391	100,431	100,471	100,511	100,551
1128	100,617	100,657	100,697	100,737	100,798	100,841	100,882	100,921	100,960	100,999
1129	101,063	101,100	101,139	101,178	101,216	101,255	101,293	101,332	101,371	101,410
1130	101,477	101,517	101,557	101,600	101,664	101,704	101,743	101,782	101,821	101,860
1131	101,927	101,966	102,005	102,043	102,082	102,121	102,159	102,198	102,236	102,275
1132	102,350	102,389	102,428	102,467	102,506	102,544	102,583	102,622	102,661	102,701
1133	102,784	102,824	102,864	102,904	102,944	102,984	103,024	103,065	103,106	103,147
1134	103,189	103,259	103,301	103,342	103,384	103,426	103,468	103,511	103,553	103,596
1135	103,670	103,713	103,755	103,798	103,842	104,285	104,498	104,570	104,643	104,712
1136	104,816	104,887	104,961	105,040	105,116	105,183	105,242	105,298	105,354	105,408
1137	105,460	105,554	105,605	105,657	105,707	105,758	105,809	105,860	105,912	105,964
1138	106,073	106,126	106,177	106,229	106,292	106,345	106,397	106,447	106,494	106,541
1139	106,649	106,696	106,742	106,788	106,833	106,879	106,924	106,981	107,027	107,074
1140	107,120	107,222	107,268	107,315	107,395	107,440	107,485	107,529	107,572	107,615
1141	107,707	107,750	107,793	107,837	107,880	107,924	107,969	108,013	108,057	108,101
1142	108,203	108,247	108,295	108,344	108,391	108,440	108,486	108,529	108,572	108,613
1143	108,713	108,755	108,797	108,839	108,880	108,922	108,965	109,007	109,049	109,092
1144	109,198	109,242	109,286	109,347	109,393	109,439	109,485	109,531	109,577	109,624

Appendix II
2009 Lake Mead – Boulder City, Nevada
Area-Capacity Tables

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1145	109,719	109,766	109,813	109,859	109,906	109,953	110,000	110,047	110,094	110,141
1146	110,242	110,290	110,344	110,409	110,458	110,506	110,554	110,601	110,649	110,695
1147	110,790	110,837	110,884	110,931	110,977	111,023	111,070	111,116	111,163	111,211
1148	111,306	111,353	111,414	111,462	111,510	111,557	111,604	111,651	111,698	111,746
1149	111,839	111,886	111,934	111,981	112,029	112,077	112,125	112,173	112,222	112,272
1150	112,323	112,408	112,473	112,525	112,576	112,626	112,677	112,727	112,777	112,826
1151	112,917	112,967	113,017	113,068	113,121	113,194	113,300	113,356	113,409	113,465
1152	113,557	113,612	113,665	113,717	113,769	113,820	113,871	113,922	113,972	114,022
1153	114,072	114,153	114,201	114,249	114,297	114,345	114,392	114,439	114,487	114,536
1154	114,616	114,667	114,716	114,765	114,815	114,873	114,926	114,978	115,029	115,077
1155	115,153	115,201	115,247	115,293	115,340	115,387	115,434	115,481	115,528	115,576
1156	115,624	115,717	115,765	115,814	115,863	115,912	115,961	116,010	116,058	116,107
1157	116,205	116,254	116,305	116,357	116,411	116,466	116,523	116,587	116,699	116,754
1158	116,849	116,902	116,953	117,004	117,055	117,105	117,156	117,207	117,257	117,310
1159	117,410	117,469	117,523	117,576	117,630	117,683	117,737	117,792	117,846	117,900
1160	117,994	118,049	118,105	118,162	118,219	118,275	118,332	118,387	118,442	118,497
1161	118,593	118,651	118,705	118,760	118,815	118,870	118,926	118,983	119,039	119,094
1162	119,192	119,247	119,303	119,360	119,416	119,472	119,528	119,584	119,641	119,698
1163	119,795	119,852	119,907	119,962	120,017	120,073	120,129	120,185	120,241	120,299
1164	120,422	120,491	120,546	120,602	120,659	120,717	120,788	120,849	120,910	120,969
1165	121,099	121,159	121,218	121,278	121,338	121,398	121,460	121,522	121,590	121,652
1166	121,793	121,855	121,916	121,978	122,040	122,102	122,165	122,228	122,290	122,352
1167	122,474	122,536	122,598	122,660	122,723	122,787	122,862	122,925	122,987	123,049
1168	123,168	123,231	123,295	123,360	123,426	123,492	123,559	123,625	123,693	123,761
1169	123,829	123,964	124,032	124,099	124,167	124,275	124,348	124,416	124,483	124,551
1170	124,673	124,739	124,804	124,869	124,936	125,002	125,068	125,135	125,201	125,268
1171	125,394	125,462	125,531	125,602	125,675	125,753	125,825	125,896	125,967	126,038
1172	126,109	126,225	126,295	126,365	126,436	126,507	126,578	126,649	126,720	126,791
1173	126,903	126,974	127,045	127,116	127,187	127,258	127,329	127,400	127,472	127,543
1174	127,655	127,727	127,799	127,872	127,958	128,031	128,103	128,173	128,244	128,313
1175	128,426	128,495	128,563	128,632	128,700	128,767	128,834	128,901	128,969	129,035
1176	129,147	129,214	129,280	129,346	129,413	129,478	129,543	129,609	129,673	129,735
1177	129,834	129,896	129,957	130,018	130,079	130,140	130,201	130,261	130,322	130,382
1178	130,490	130,550	130,612	130,673	130,734	130,795	130,856	130,938	131,001	131,063
1179	131,158	131,219	131,280	131,340	131,400	131,460	131,521	131,582	131,640	131,698

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1180	131,792	131,850	131,908	131,966	132,024	132,081	132,138	132,195	132,252	132,309
1181	132,402	132,460	132,518	132,577	132,635	132,694	132,755	132,875	132,936	132,995
1182	133,086	133,145	133,204	133,262	133,322	133,380	133,438	133,496	133,554	133,612
1183	133,699	133,758	133,816	133,875	133,934	133,992	134,053	134,113	134,172	134,231
1184	134,312	134,371	134,432	134,492	134,554	134,615	134,676	134,738	134,800	134,862
1185	134,923	135,005	135,067	135,129	135,191	135,256	135,321	135,382	135,444	135,505
1186	135,598	135,659	135,719	135,789	135,851	135,912	135,974	136,038	136,100	136,164
1187	136,249	136,312	136,375	136,438	136,500	136,567	136,646	136,710	136,773	136,835
1188	136,897	136,983	137,045	137,106	137,169	137,233	137,296	137,359	137,422	137,484
1189	137,570	137,632	137,693	137,753	137,815	137,910	137,974	138,036	138,098	138,159
1190	138,246	138,307	138,367	138,427	138,489	138,549	138,610	138,670	138,731	138,791
1191	138,873	138,934	138,994	139,055	139,116	139,179	139,243	139,307	139,371	139,435
1192	139,519	139,583	139,648	139,712	139,778	139,842	139,907	139,971	140,035	140,100
1193	140,183	140,248	140,312	140,377	140,441	140,507	140,572	140,637	140,702	140,768
1194	140,855	140,922	140,989	141,057	141,126	141,193	141,261	141,329	141,397	141,466
1195	141,554	141,621	141,687	141,753	141,819	141,885	141,950	142,015	142,080	142,145
1196	142,224	142,287	142,350	142,412	142,474	142,536	142,600	142,663	142,725	142,788
1197	142,870	142,933	142,997	143,061	143,125	143,189	143,254	143,319	143,384	143,449
1198	143,531	143,596	143,662	143,727	143,791	143,855	143,919	143,983	144,047	144,110
1199	144,191	144,254	144,317	144,379	144,441	144,504	144,566	144,629	144,692	144,754
1200	144,834	144,896	144,958	145,019	145,082	145,144	145,206	145,271	145,333	145,396
1201	145,458	145,539	145,604	145,671	145,787	145,853	145,917	145,981	146,046	146,112
1202	146,197	146,263	146,331	146,401	146,476	146,561	146,735	146,891	146,967	147,038
1203	147,144	147,216	147,283	147,349	147,415	147,480	147,545	147,610	147,674	147,739
1204	147,803	147,883	147,949	148,015	148,082	148,148	148,215	148,282	148,353	148,422
1205	148,511	148,583	148,662	148,799	148,870	148,938	149,005	149,072	149,139	149,206
1206	149,292	149,359	149,426	149,493	149,564	149,631	149,698	149,764	149,831	149,896
1207	149,962	150,046	150,111	150,175	150,239	150,303	150,367	150,431	150,495	150,559
1208	150,643	150,707	150,771	150,835	150,898	150,961	151,024	151,086	151,149	151,213
1209	151,298	151,361	151,423	151,485	151,548	151,610	151,672	151,735	151,797	151,860
1210	151,941	152,004	152,067	152,129	152,192	152,254	152,316	152,377	152,439	152,500
1211	152,580	152,640	152,702	152,763	152,824	152,884	152,943	153,003	153,062	153,121
1212	153,196	153,255	153,314	153,372	153,431	153,490	153,548	153,606	153,664	153,722
1213	153,793	153,852	153,909	153,967	154,025	154,082	154,140	154,199	154,257	154,315
1214	154,385	154,443	154,500	154,557	154,615	154,672	154,730	154,787	154,844	154,901

Areas in Acres

The elevation increment is one tenth foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1215	154,968	155,024	155,079	155,133	155,188	155,241	155,295	155,348	155,401	155,454
1216	155,517	155,570	155,624	155,676	155,730	155,782	155,836	155,889	155,941	155,994
1217	156,057	156,109	156,162	156,215	156,268	156,321	156,375	156,428	156,481	156,534
1218	156,598	156,651	156,705	156,758	156,812	156,866	156,919	156,972	157,026	157,079
1219	157,142	157,196	157,250	157,304	157,358	157,412	157,466	157,520	157,574	157,628
1220	157,683	157,749	157,804	157,860	157,916	157,972	158,028	158,084	158,140	158,197
1221	158,262	158,319	158,375	158,431	158,488	158,545	158,604	158,664	158,723	158,783
1222	158,853	158,914	158,974	159,035	159,096	159,157	159,217	159,278	159,339	159,400
1223	159,461	159,532	159,593	159,653	159,714	159,774	159,834	159,894	159,953	160,012
1224	160,079	160,137	160,195	160,253	160,310	160,367	160,424	160,480	160,536	160,592
1225	160,655	160,710	160,766	160,821	160,876	160,931	160,986	161,042	161,099	161,154
1226	161,218	161,273	161,328	161,383	161,438	161,493	161,548	161,603	161,659	161,714
1227	161,777	161,833	161,888	161,943	161,998	162,053	162,108	162,164	162,220	162,277
1228	162,341	162,398	162,454	162,512	162,568	162,624	162,681	162,737	162,794	162,851
1229	162,916	162,973	163,030	163,088	163,146	163,205	163,263	163,322	163,380	163,438
1230	163,504									

	Appendix III									
	2009 Lake Mead Dead Storage – Boulder City, NV									
	Area - Capacity Tables									
	The Volume Table is in Acre Feet								*The Elevation Increment is One Tenth Foot*	
ELEV. FEET	*.0*	*.1*	*.2*	*.3*	*.4*	*.5*	*.6*	*.7*	*.8*	*.9*
689	0	0	0	0	0	0	0	0	0	0
690	0	0	0	0	0	0	0	0	0	0
691	0	0	0	0	0	0	0	0	0	0
692	0	0	0	0	0	0	0	0	0	0
693	0	0	0	0	0	0	0	0	0	1
694	1	1	1	1	1	1	1	1	1	1
695	1	1	1	1	1	1	1	1	1	1
696	1	1	1	1	1	1	1	1	1	1
697	1	1	1	1	2	2	2	2	2	2
698	2	2	2	2	2	2	2	2	2	2
699	2	2	2	2	2	2	2	2	2	3
700	3	3	3	3	3	3	3	3	3	3
701	3	3	3	3	4	4	4	4	4	4
702	4	4	4	5	5	5	5	5	5	5
703	6	6	6	6	6	6	7	7	7	7
704	7	7	8	8	8	8	8	9	9	9
705	9	9	10	10	10	10	11	11	11	11
706	12	12	12	12	13	13	13	14	14	14
707	14	15	15	15	16	16	16	16	17	17
708	17	18	18	18	19	19	19	20	20	21
709	21	21	22	22	22	23	23	23	24	24
710	25	25	26	26	27	27	28	29	29	30
711	31	32	33	34	35	36	37	39	40	41
712	43	44	45	47	48	50	52	53	55	57
713	59	61	63	65	67	69	71	73	76	78
714	80	83	85	88	90	93	96	98	101	104
715	107	110	113	116	119	122	125	128	131	135
716	138	142	145	149	152	156	159	163	167	171
717	175	178	182	186	190	195	199	203	207	212
718	216	220	225	229	234	238	243	248	253	257
719	262	267	272	277	282	287	293	298	303	308
720	314	320	327	336	346	357	369	383	398	415
721	432	451	472	493	516	540	566	593	621	650
722	681	713	746	780	816	853	892	932	973	1,015
723	1,059	1,103	1,150	1,197	1,246	1,296	1,347	1,400	1,454	1,509
724	1,566	1,624	1,683	1,744	1,805	1,868	1,933	1,998	2,065	2,134

ELEV. FEET	The Volume Table is in Acre Feet							The Elevation Increment is One Tenth Foot		
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
725	2,203	2,274	2,346	2,420	2,494	2,570	2,648	2,726	2,806	2,887
726	2,970	3,054	3,139	3,225	3,313	3,402	3,492	3,584	3,677	3,771
727	3,866	3,963	4,061	4,160	4,261	4,363	4,466	4,571	4,677	4,784
728	4,892	5,002	5,113	5,225	5,339	5,454	5,570	5,687	5,806	5,926
729	6,048	6,170	6,294	6,420	6,546	6,674	6,803	6,934	7,066	7,199
730	7,333	7,469	7,607	7,746	7,887	8,031	8,176	8,322	8,471	8,621
731	8,774	8,928	9,083	9,241	9,401	9,562	9,725	9,890	10,057	10,225
732	10,395	10,568	10,741	10,917	11,095	11,274	11,455	11,638	11,823	12,010
733	12,198	12,389	12,581	12,775	12,970	13,168	13,367	13,568	13,771	13,976
734	14,183	14,391	14,601	14,813	15,027	15,243	15,460	15,680	15,901	16,124
735	16,348	16,575	16,803	17,033	17,265	17,499	17,735	17,972	18,211	18,452
736	18,695	18,940	19,186	19,434	19,685	19,936	20,190	20,446	20,703	20,962
737	21,223	21,486	21,750	22,017	22,285	22,555	22,827	23,101	23,376	23,653
738	23,932	24,213	24,496	24,780	25,067	25,355	25,645	25,937	26,230	26,526
739	26,823	27,122	27,423	27,725	28,030	28,336	28,644	28,954	29,266	29,579
740	29,895	30,212	30,530	30,851	31,172	31,496	31,821	32,148	32,476	32,806
741	33,138	33,471	33,806	34,142	34,480	34,820	35,162	35,504	35,849	36,195
742	36,543	36,892	37,243	37,596	37,950	38,306	38,664	39,023	39,384	39,746
743	40,110	40,476	40,843	41,212	41,582	41,954	42,328	42,703	43,080	43,459
744	43,839	44,220	44,604	44,989	45,376	45,764	46,154	46,545	46,938	47,333
745	47,729	48,127	48,527	48,928	49,331	49,735	50,141	50,549	50,958	51,369
746	51,782	52,196	52,612	53,029	53,448	53,869	54,291	54,715	55,140	55,567
747	55,996	56,426	56,858	57,292	57,727	58,164	58,602	59,042	59,484	59,927
748	60,372	60,819	61,267	61,717	62,168	62,621	63,076	63,532	63,990	64,449
749	64,910	65,373	65,837	66,303	66,771	67,240	67,711	68,183	68,657	69,133
750	69,610	70,089	70,569	71,050	71,532	72,016	72,500	72,986	73,473	73,962
751	74,451	74,942	75,434	75,927	76,421	76,917	77,413	77,911	78,410	78,911
752	79,412	79,915	80,419	80,924	81,431	81,938	82,447	82,957	83,468	83,981
753	84,494	85,009	85,525	86,042	86,561	87,080	87,601	88,123	88,646	89,171
754	89,696	90,223	90,751	91,280	91,811	92,342	92,875	93,409	93,945	94,481
755	95,019	95,558	96,098	96,639	97,181	97,725	98,270	98,816	99,363	99,912
756	100,462	101,013	101,565	102,118	102,673	103,228	103,785	104,343	104,903	105,463
757	106,025	106,588	107,152	107,717	108,284	108,852	109,421	109,991	110,562	111,135
758	111,709	112,284	112,860	113,437	114,016	114,596	115,177	115,759	116,342	116,927
759	117,513	118,100	118,688	119,277	119,868	120,460	121,053	121,647	122,243	122,839

ELEV. FEET	*The Volume Table is in Acre Feet*							*The Elevation Increment is One Tenth Foot*		
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
760	123,437	124,036	124,636	125,237	125,839	126,441	127,045	127,649	128,255	128,861
761	129,468	130,076	130,685	131,295	131,906	132,518	133,131	133,745	134,359	134,975
762	135,591	136,209	136,827	137,446	138,066	138,688	139,310	139,933	140,556	141,181
763	141,807	142,434	143,061	143,690	144,319	144,949	145,581	146,213	146,846	147,480
764	148,115	148,751	149,388	150,025	150,664	151,304	151,944	152,585	153,228	153,871
765	154,515	155,160	155,806	156,453	157,101	157,750	158,400	159,050	159,702	160,354
766	161,008	161,662	162,318	162,974	163,631	164,289	164,948	165,608	166,269	166,930
767	167,593	168,257	168,921	169,586	170,253	170,920	171,588	172,257	172,928	173,598
768	174,270	174,943	175,617	176,292	176,967	177,644	178,321	179,000	179,679	180,359
769	181,040	181,722	182,405	183,089	183,774	184,460	185,146	185,834	186,523	187,212
770	187,902	188,594	189,287	189,981	190,676	191,373	192,071	192,770	193,471	194,173
771	194,876	195,581	196,287	196,994	197,703	198,413	199,124	199,837	200,550	201,266
772	201,982	202,700	203,419	204,139	204,861	205,584	206,308	207,034	207,761	208,489
773	209,219	209,950	210,682	211,416	212,151	212,887	213,624	214,363	215,103	215,845
774	216,588	217,332	218,077	218,824	219,572	220,321	221,072	221,824	222,577	223,332
775	224,088	224,845	225,603	226,363	227,124	227,887	228,651	229,416	230,182	230,950
776	231,719	232,489	233,261	234,034	234,808	235,584	236,361	237,139	237,919	238,700
777	239,482	240,266	241,050	241,837	242,624	243,413	244,203	244,994	245,787	246,581
778	247,376	248,173	248,971	249,770	250,571	251,373	252,176	252,981	253,787	254,594
779	255,402	256,212	257,023	257,836	258,650	259,465	260,281	261,099	261,918	262,738
780	263,560	264,383	265,207	266,033	266,861	267,689	268,520	269,351	270,185	271,019
781	271,855	272,693	273,531	274,372	275,214	276,057	276,901	277,747	278,595	279,444
782	280,294	281,146	282,000	282,854	283,710	284,568	285,427	286,288	287,150	288,013
783	288,878	289,744	290,612	291,481	292,352	293,224	294,097	294,972	295,848	296,726
784	297,605	298,486	299,368	300,252	301,137	302,023	302,911	303,800	304,691	305,583
785	306,477	307,372	308,269	309,167	310,066	310,967	311,869	312,773	313,678	314,585
786	315,493	316,402	317,313	318,226	319,140	320,055	320,972	321,890	322,809	323,730
787	324,653	325,577	326,502	327,429	328,357	329,287	330,218	331,150	332,084	333,020
788	333,957	334,895	335,835	336,776	337,719	338,663	339,608	340,555	341,504	342,454
789	343,405	344,358	345,312	346,267	347,224	348,183	349,143	350,104	351,067	352,031
790	352,997	353,965	354,937	355,913	356,892	357,874	358,861	359,850	360,844	361,841
791	362,842	363,846	364,854	365,865	366,880	367,899	368,921	369,947	370,976	372,009
792	373,046	374,086	375,130	376,178	377,229	378,283	379,342	380,404	381,469	382,538
793	383,611	384,687	385,767	386,850	387,937	389,028	390,122	391,220	392,322	393,427
794	394,536	395,648	396,764	397,883	399,006	400,133	401,263	402,397	403,535	404,676

ELEV. FEET	The Volume Table is in Acre Feet							The Elevation Increment is One Tenth Foot		
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
795	405,820	406,969	408,121	409,276	410,435	411,598	412,764	413,934	415,108	416,285
796	417,466	418,650	419,838	421,029	422,224	423,423	424,626	425,831	427,041	428,254
797	429,471	430,691	431,915	433,143	434,374	435,609	436,847	438,089	439,334	440,584
798	441,836	443,093	444,353	445,616	446,883	448,154	449,428	450,706	451,988	453,273
799	454,562	455,854	457,150	458,450	459,753	461,060	462,370	463,684	465,002	466,323
800	467,648	468,975	470,305	471,636	472,970	474,305	475,642	476,982	478,323	479,666
801	481,012	482,359	483,708	485,059	486,413	487,768	489,125	490,484	491,845	493,208
802	494,573	495,940	497,309	498,680	500,052	501,427	502,804	504,183	505,563	506,946
803	508,331	509,717	511,106	512,497	513,889	515,284	516,680	518,078	519,479	520,881
804	522,286	523,692	525,100	526,510	527,923	529,337	530,753	532,171	533,591	535,013
805	536,437	537,863	539,291	540,721	542,153	543,587	545,023	546,461	547,900	549,342
806	550,786	552,232	553,679	555,129	556,581	558,034	559,490	560,947	562,407	563,868
807	565,331	566,797	568,264	569,733	571,205	572,678	574,153	575,630	577,110	578,591
808	580,074	581,559	583,046	584,535	586,026	587,519	589,014	590,511	592,009	593,510
809	595,013	596,518	598,024	599,533	601,044	602,556	604,071	605,588	607,106	608,627
810	610,149	611,674	613,200	614,728	616,258	617,790	619,323	620,859	622,396	623,935
811	625,476	627,019	628,564	630,111	631,659	633,209	634,762	636,316	637,871	639,429
812	640,989	642,550	644,113	645,679	647,246	648,814	650,385	651,958	653,532	655,108
813	656,686	658,266	659,848	661,432	663,017	664,605	666,194	667,785	669,378	670,973
814	672,569	674,168	675,768	677,370	678,974	680,580	682,188	683,798	685,409	687,022
815	688,638	690,255	691,874	693,494	695,117	696,741	698,367	699,996	701,626	703,257
816	704,891	706,527	708,164	709,803	711,444	713,087	714,732	716,379	718,027	719,678
817	721,330	722,984	724,640	726,298	727,957	729,619	731,282	732,947	734,614	736,283
818	737,954	739,626	741,301	742,977	744,655	746,335	748,017	749,701	751,386	753,074
819	754,763	756,454	758,147	759,842	761,539	763,237	764,938	766,640	768,344	770,050
820	771,758	773,467	775,178	776,891	778,606	780,322	782,039	783,759	785,480	787,202
821	788,927	790,652	792,380	794,109	795,840	797,572	799,306	801,042	802,780	804,519
822	806,259	808,001	809,745	811,491	813,238	814,987	816,737	818,489	820,243	821,998
823	823,755	825,514	827,274	829,036	830,800	832,565	834,332	836,100	837,870	839,642
824	841,415	843,190	844,967	846,745	848,525	850,307	852,090	853,875	855,661	857,449
825	859,239	861,030	862,823	864,618	866,414	868,212	870,012	871,813	873,616	875,420
826	877,226	879,034	880,843	882,654	884,467	886,281	888,097	889,915	891,734	893,555
827	895,377	897,201	899,027	900,854	902,683	904,514	906,346	908,180	910,016	911,853
828	913,692	915,532	917,374	919,218	921,063	922,910	924,759	926,609	928,461	930,315
829	932,170	934,027	935,885	937,745	939,607	941,470	943,335	945,202	947,070	948,940

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
	The Volume Table is in Acre Feet						The Elevation Increment is One Tenth Foot			
830	950,812	952,685	954,560	956,437	958,316	960,196	962,079	963,963	965,849	967,737
831	969,627	971,518	973,412	975,307	977,204	979,103	981,004	982,907	984,811	986,717
832	988,626	990,536	992,447	994,361	996,276	998,194	1,000,113	1,002,034	1,003,957	1,005,881
833	1,007,808	1,009,736	1,011,666	1,013,598	1,015,532	1,017,467	1,019,405	1,021,344	1,023,285	1,025,228
834	1,027,173	1,029,120	1,031,068	1,033,018	1,034,971	1,036,925	1,038,880	1,040,838	1,042,797	1,044,759
835	1,046,722	1,048,687	1,050,654	1,052,622	1,054,593	1,056,565	1,058,539	1,060,515	1,062,493	1,064,473
836	1,066,454	1,068,437	1,070,422	1,072,409	1,074,398	1,076,389	1,078,381	1,080,376	1,082,372	1,084,370
837	1,086,370	1,088,371	1,090,375	1,092,380	1,094,387	1,096,396	1,098,407	1,100,419	1,102,434	1,104,450
838	1,106,468	1,108,488	1,110,510	1,112,534	1,114,559	1,116,587	1,118,616	1,120,647	1,122,680	1,124,714
839	1,126,751	1,128,789	1,130,829	1,132,871	1,134,915	1,136,961	1,139,008	1,141,057	1,143,108	1,145,161
840	1,147,216	1,149,273	1,151,332	1,153,392	1,155,455	1,157,520	1,159,586	1,161,655	1,163,726	1,165,798
841	1,167,873	1,169,949	1,172,028	1,174,108	1,176,191	1,178,275	1,180,362	1,182,450	1,184,541	1,186,633
842	1,188,728	1,190,824	1,192,922	1,195,023	1,197,125	1,199,229	1,201,336	1,203,444	1,205,554	1,207,666
843	1,209,781	1,211,897	1,214,015	1,216,135	1,218,257	1,220,382	1,222,508	1,224,636	1,226,766	1,228,898
844	1,231,032	1,233,168	1,235,306	1,237,446	1,239,588	1,241,732	1,243,878	1,246,026	1,248,176	1,250,328
845	1,252,482	1,254,638	1,256,795	1,258,955	1,261,117	1,263,281	1,265,447	1,267,615	1,269,784	1,271,956
846	1,274,130	1,276,305	1,278,483	1,280,663	1,282,844	1,285,028	1,287,214	1,289,401	1,291,591	1,293,783
847	1,295,976	1,298,172	1,300,369	1,302,569	1,304,770	1,306,974	1,309,179	1,311,387	1,313,596	1,315,807
848	1,318,021	1,320,236	1,322,453	1,324,673	1,326,894	1,329,117	1,331,343	1,333,570	1,335,799	1,338,031
849	1,340,264	1,342,499	1,344,736	1,346,975	1,349,216	1,351,460	1,353,705	1,355,952	1,358,201	1,360,452
850	1,362,705	1,364,960	1,367,217	1,369,475	1,371,735	1,373,997	1,376,261	1,378,526	1,380,794	1,383,063
851	1,385,333	1,387,606	1,389,880	1,392,156	1,394,434	1,396,713	1,398,994	1,401,278	1,403,562	1,405,849
852	1,408,137	1,410,427	1,412,719	1,415,012	1,417,308	1,419,605	1,421,904	1,424,204	1,426,506	1,428,810
853	1,431,116	1,433,424	1,435,733	1,438,044	1,440,357	1,442,672	1,444,988	1,447,306	1,449,626	1,451,948
854	1,454,271	1,456,596	1,458,923	1,461,252	1,463,582	1,465,914	1,468,248	1,470,584	1,472,921	1,475,261
855	1,477,602	1,479,944	1,482,289	1,484,635	1,486,983	1,489,332	1,491,684	1,494,037	1,496,392	1,498,749
856	1,501,107	1,503,468	1,505,830	1,508,193	1,510,559	1,512,926	1,515,295	1,517,666	1,520,038	1,522,413
857	1,524,789	1,527,167	1,529,546	1,531,927	1,534,311	1,536,695	1,539,082	1,541,470	1,543,860	1,546,252
858	1,548,646	1,551,041	1,553,438	1,555,837	1,558,238	1,560,640	1,563,044	1,565,450	1,567,858	1,570,267
859	1,572,678	1,575,091	1,577,506	1,579,922	1,582,340	1,584,760	1,587,182	1,589,606	1,592,031	1,594,458
860	1,596,886	1,599,317	1,601,749	1,604,182	1,606,617	1,609,054	1,611,492	1,613,932	1,616,374	1,618,817
861	1,621,261	1,623,707	1,626,155	1,628,604	1,631,055	1,633,508	1,635,962	1,638,418	1,640,875	1,643,334
862	1,645,794	1,648,256	1,650,720	1,653,185	1,655,652	1,658,120	1,660,590	1,663,061	1,665,534	1,668,009
863	1,670,485	1,672,963	1,675,442	1,677,923	1,680,406	1,682,890	1,685,376	1,687,863	1,690,352	1,692,842
864	1,695,334	1,697,828	1,700,323	1,702,820	1,705,318	1,707,818	1,710,320	1,712,823	1,715,328	1,717,834

ELEV. FEET	The Volume Table is in Acre Feet							The Elevation Increment is One Tenth Foot		
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
865	1,720,342	1,722,851	1,725,362	1,727,875	1,730,389	1,732,905	1,735,422	1,737,941	1,740,462	1,742,984
866	1,745,507	1,748,032	1,750,559	1,753,088	1,755,618	1,758,149	1,760,682	1,763,217	1,765,753	1,768,291
867	1,770,831	1,773,372	1,775,914	1,778,459	1,781,004	1,783,552	1,786,101	1,788,651	1,791,203	1,793,757
868	1,796,312	1,798,869	1,801,428	1,803,988	1,806,549	1,809,113	1,811,677	1,814,244	1,816,812	1,819,381
869	1,821,952	1,824,525	1,827,099	1,829,675	1,832,252	1,834,831	1,837,412	1,839,994	1,842,578	1,845,163
870	1,847,750	1,850,339	1,852,929	1,855,520	1,858,114	1,860,709	1,863,306	1,865,904	1,868,504	1,871,105
871	1,873,708	1,876,313	1,878,920	1,881,528	1,884,137	1,886,748	1,889,361	1,891,976	1,894,592	1,897,210
872	1,899,829	1,902,450	1,905,073	1,907,697	1,910,323	1,912,951	1,915,580	1,918,211	1,920,843	1,923,477
873	1,926,113	1,928,750	1,931,389	1,934,030	1,936,672	1,939,316	1,941,961	1,944,608	1,947,257	1,949,907
874	1,952,559	1,955,212	1,957,868	1,960,524	1,963,183	1,965,843	1,968,505	1,971,168	1,973,833	1,976,500
875	1,979,168	1,981,838	1,984,509	1,987,182	1,989,857	1,992,533	1,995,211	1,997,891	2,000,572	2,003,255
876	2,005,939	2,008,625	2,011,313	2,014,002	2,016,693	2,019,386	2,022,080	2,024,776	2,027,473	2,030,172
877	2,032,873	2,035,575	2,038,279	2,040,985	2,043,692	2,046,401	2,049,112	2,051,824	2,054,538	2,057,253
878	2,059,970	2,062,688	2,065,409	2,068,130	2,070,854	2,073,579	2,076,306	2,079,034	2,081,764	2,084,496
879	2,087,229	2,089,964	2,092,700	2,095,439	2,098,178	2,100,920	2,103,663	2,106,407	2,109,154	2,111,901
880	2,114,651	2,117,402	2,120,155	2,122,909	2,125,666	2,128,424	2,131,183	2,133,944	2,136,707	2,139,472
881	2,142,238	2,145,007	2,147,776	2,150,548	2,153,321	2,156,096	2,158,872	2,161,650	2,164,430	2,167,212
882	2,169,995	2,172,780	2,175,566	2,178,355	2,181,145	2,183,936	2,186,730	2,189,525	2,192,322	2,195,120
883	2,197,920	2,200,722	2,203,525	2,206,331	2,209,138	2,211,946	2,214,756	2,217,568	2,220,382	2,223,197
884	2,226,014	2,228,833	2,231,653	2,234,475	2,237,299	2,240,125	2,242,952	2,245,781	2,248,611	2,251,443
885	2,254,277	2,257,113	2,259,950	2,262,789	2,265,630	2,268,472	2,271,316	2,274,162	2,277,009	2,279,858
886	2,282,709	2,285,561	2,288,415	2,291,271	2,294,129	2,296,988	2,299,849	2,302,711	2,305,576	2,308,442
887	2,311,309	2,314,179	2,317,050	2,319,922	2,322,797	2,325,673	2,328,551	2,331,430	2,334,311	2,337,194
888	2,340,079	2,342,965	2,345,853	2,348,742	2,351,634	2,354,527	2,357,421	2,360,318	2,363,216	2,366,115
889	2,369,017	2,371,920	2,374,825	2,377,731	2,380,639	2,383,549	2,386,461	2,389,374	2,392,289	2,395,206
890	2,398,124	2,401,044	2,403,966	2,406,890	2,409,816	2,412,744	2,415,674	2,418,606	2,421,540	2,424,476
891	2,427,413	2,430,353	2,433,295	2,436,238	2,439,184	2,442,132	2,445,081	2,448,033	2,450,986	2,453,941
892	2,456,899	2,459,858	2,462,820	2,465,783	2,468,748	2,471,715	2,474,684	2,477,655	2,480,629	2,483,604
893	2,486,581	2,489,559	2,492,540	2,495,523	2,498,508	2,501,495	2,504,484	2,507,474	2,510,467	2,513,462
894	2,516,458	2,519,457	2,522,457	2,525,460	2,528,464	2,531,471	2,534,479	2,537,489	2,540,502	2,543,516
895	2,546,532									

Area - Capacity Tables

ELEV. FEET	The Volume Table is in Acre Feet .0	.1	.2	.3	.4	.5	The Elevation Increment is One Tenth Foot .6	.7	.8	.9
895	0	3,018	6,038	9,061	12,085	15,111	18,139	21,169	24,200	27,234
896	30,270	33,308	36,348	39,389	42,433	45,479	48,526	51,576	54,627	57,681
897	60,736	63,794	66,853	69,914	72,977	76,043	79,110	82,179	85,250	88,323
898	91,398	94,475	97,554	100,635	103,718	106,803	109,890	112,979	116,069	119,162
899	122,257	125,353	128,452	131,552	134,655	137,759	140,866	143,974	147,084	150,197
900	153,311	156,427	159,546	162,667	165,791	168,917	172,046	175,177	178,310	181,446
901	184,584	187,724	190,867	194,013	197,161	200,311	203,464	206,619	209,776	212,936
902	216,098	219,263	222,430	225,600	228,771	231,946	235,123	238,302	241,483	244,667
903	247,854	251,043	254,234	257,427	260,623	263,822	267,023	270,226	273,432	276,640
904	279,851	283,063	286,279	289,496	292,717	295,939	299,164	302,392	305,621	308,854
905	312,088	315,325	318,565	321,807	325,051	328,298	331,547	334,798	338,052	341,309
906	344,568	347,829	351,092	354,358	357,627	360,898	364,171	367,446	370,725	374,005
907	377,288	380,573	383,861	387,151	390,443	393,739	397,036	400,336	403,638	406,943
908	410,250	413,559	416,871	420,185	423,502	426,821	430,142	433,466	436,792	440,121
909	443,452	446,786	450,122	453,460	456,801	460,144	463,490	466,838	470,188	473,541
910	476,896	480,254	483,614	486,976	490,341	493,708	497,078	500,449	503,824	507,200
911	510,579	513,960	517,344	520,730	524,118	527,509	530,902	534,297	537,695	541,095
912	544,497	547,902	551,309	554,719	558,131	561,545	564,961	568,380	571,802	575,225
913	578,651	582,080	585,510	588,943	592,379	595,817	599,257	602,699	606,144	609,592
914	613,041	616,493	619,947	623,404	626,863	630,324	633,788	637,254	640,723	644,193
915	647,667	651,142	654,620	658,100	661,583	665,068	668,555	672,045	675,537	679,031
916	682,528	686,027	689,529	693,032	696,539	700,047	703,558	707,071	710,587	714,105
917	717,625	721,147	724,673	728,200	731,730	735,262	738,796	742,333	745,872	749,414
918	752,958	756,504	760,053	763,603	767,157	770,713	774,271	777,831	781,394	784,959
919	788,526	792,096	795,668	799,243	802,820	806,399	809,981	813,565	817,151	820,739
920	824,331	827,924	831,520	835,118	838,718	842,320	845,925	849,532	853,141	856,753
921	860,367	863,983	867,601	871,222	874,845	878,471	882,098	885,728	889,360	892,995
922	896,631	900,270	903,911	907,555	911,201	914,849	918,499	922,152	925,807	929,464
923	933,123	936,785	940,450	944,116	947,785	951,455	955,129	958,804	962,482	966,162
924	969,844	973,529	977,216	980,905	984,596	988,290	991,986	995,684	999,385	1,003,088
925	1,006,793	1,010,500	1,014,210	1,017,922	1,021,636	1,025,353	1,029,072	1,032,793	1,036,516	1,040,242
926	1,043,970	1,047,700	1,051,433	1,055,167	1,058,904	1,062,644	1,066,385	1,070,129	1,073,875	1,077,624
927	1,081,375	1,085,128	1,088,883	1,092,641	1,096,401	1,100,163	1,103,927	1,107,694	1,111,463	1,115,235
928	1,119,008	1,122,784	1,126,562	1,130,342	1,134,125	1,137,910	1,141,697	1,145,487	1,149,279	1,153,073
929	1,156,869	1,160,667	1,164,469	1,168,272	1,172,077	1,175,885	1,179,695	1,183,507	1,187,322	1,191,139

ELEV. FEET	*The Volume Table is in Acre Feet*						*The Elevation Increment is One Tenth Foot*			
	.0	*.1*	*.2*	*.3*	*.4*	*.5*	*.6*	*.7*	*.8*	*.9*
930	1,194,958	1,198,780	1,202,603	1,206,430	1,210,259	1,214,089	1,217,922	1,221,758	1,225,595	1,229,435
931	1,233,278	1,237,123	1,240,970	1,244,819	1,248,671	1,252,525	1,256,381	1,260,240	1,264,101	1,267,964
932	1,271,830	1,275,698	1,279,568	1,283,441	1,287,315	1,291,193	1,295,072	1,298,955	1,302,838	1,306,725
933	1,310,614	1,314,505	1,318,399	1,322,294	1,326,193	1,330,093	1,333,996	1,337,901	1,341,808	1,345,718
934	1,349,630	1,353,545	1,357,462	1,361,381	1,365,302	1,369,226	1,373,152	1,377,080	1,381,011	1,384,944
935	1,388,879	1,392,817	1,396,757	1,400,699	1,404,643	1,408,591	1,412,540	1,416,491	1,420,445	1,424,402
936	1,428,360	1,432,321	1,436,284	1,440,250	1,444,218	1,448,188	1,452,160	1,456,135	1,460,112	1,464,092
937	1,468,074	1,472,058	1,476,044	1,480,033	1,484,024	1,488,018	1,492,013	1,496,011	1,500,011	1,504,014
938	1,508,019	1,512,027	1,516,036	1,520,048	1,524,063	1,528,079	1,532,099	1,536,120	1,540,143	1,544,169
939	1,548,198	1,552,228	1,556,261	1,560,296	1,564,334	1,568,374	1,572,416	1,576,460	1,580,507	1,584,556
940	1,588,608	1,592,662	1,596,718	1,600,776	1,604,837	1,608,900	1,612,966	1,617,034	1,621,104	1,625,177
941	1,629,251	1,633,329	1,637,408	1,641,491	1,645,575	1,649,661	1,653,750	1,657,842	1,661,935	1,666,031
942	1,670,130	1,674,230	1,678,333	1,682,439	1,686,546	1,690,656	1,694,769	1,698,883	1,703,001	1,707,120
943	1,711,242	1,715,366	1,719,492	1,723,621	1,727,752	1,731,886	1,736,021	1,740,160	1,744,300	1,748,443
944	1,752,588	1,756,736	1,760,885	1,765,038	1,769,192	1,773,349	1,777,508	1,781,670	1,785,834	1,790,000
945	1,794,169	1,798,340	1,802,513	1,806,689	1,810,867	1,815,047	1,819,230	1,823,415	1,827,602	1,831,792
946	1,835,984	1,840,178	1,844,375	1,848,574	1,852,775	1,856,979	1,861,185	1,865,393	1,869,604	1,873,817
947	1,878,033	1,882,250	1,886,471	1,890,693	1,894,918	1,899,145	1,903,375	1,907,606	1,911,841	1,916,077
948	1,920,316	1,924,557	1,928,801	1,933,047	1,937,295	1,941,545	1,945,798	1,950,054	1,954,311	1,958,571
949	1,962,834	1,967,098	1,971,365	1,975,634	1,979,906	1,984,180	1,988,456	1,992,735	1,997,016	2,001,300
950	2,005,585	2,009,873	2,014,164	2,018,458	2,022,754	2,027,052	2,031,353	2,035,657	2,039,963	2,044,272
951	2,048,584	2,052,898	2,057,215	2,061,534	2,065,856	2,070,180	2,074,507	2,078,837	2,083,169	2,087,504
952	2,091,842	2,096,182	2,100,524	2,104,869	2,109,217	2,113,568	2,117,921	2,122,276	2,126,634	2,130,995
953	2,135,358	2,139,724	2,144,093	2,148,464	2,152,838	2,157,214	2,161,593	2,165,975	2,170,359	2,174,745
954	2,179,135	2,183,526	2,187,921	2,192,318	2,196,718	2,201,120	2,205,525	2,209,932	2,214,342	2,218,755
955	2,223,170	2,227,588	2,232,008	2,236,431	2,240,857	2,245,285	2,249,715	2,254,149	2,258,585	2,263,023
956	2,267,464	2,271,908	2,276,354	2,280,803	2,285,255	2,289,709	2,294,166	2,298,625	2,303,087	2,307,551
957	2,312,018	2,316,488	2,320,960	2,325,435	2,329,912	2,334,392	2,338,875	2,343,360	2,347,848	2,352,338
958	2,356,831	2,361,327	2,365,825	2,370,325	2,374,829	2,379,335	2,383,843	2,388,354	2,392,868	2,397,384
959	2,401,903	2,406,425	2,410,949	2,415,475	2,420,005	2,424,536	2,429,071	2,433,608	2,438,148	2,442,690
960	2,447,235	2,451,782	2,456,332	2,460,884	2,465,438	2,469,995	2,474,554	2,479,116	2,483,680	2,488,246
961	2,492,815	2,497,386	2,501,960	2,506,536	2,511,114	2,515,695	2,520,278	2,524,863	2,529,451	2,534,041
962	2,538,634	2,543,229	2,547,826	2,552,426	2,557,028	2,561,633	2,566,240	2,570,849	2,575,461	2,580,075
963	2,584,691	2,589,310	2,593,931	2,598,555	2,603,181	2,607,809	2,612,440	2,617,073	2,621,709	2,626,347
964	2,630,987	2,635,630	2,640,275	2,644,922	2,649,572	2,654,225	2,658,879	2,663,536	2,668,196	2,672,857

	The Volume Table is in Acre Feet							*The Elevation Increment is One Tenth Foot*		
ELEV. FEET	*.0*	*.1*	*.2*	*.3*	*.4*	*.5*	*.6*	*.7*	*.8*	*.9*
965	2,677,522	2,682,188	2,686,857	2,691,528	2,696,202	2,700,878	2,705,557	2,710,238	2,714,921	2,719,607
966	2,724,295	2,728,985	2,733,678	2,738,373	2,743,071	2,747,771	2,752,473	2,757,178	2,761,885	2,766,594
967	2,771,306	2,776,021	2,780,737	2,785,456	2,790,178	2,794,901	2,799,628	2,804,356	2,809,087	2,813,821
968	2,818,556	2,823,295	2,828,035	2,832,778	2,837,523	2,842,271	2,847,022	2,851,774	2,856,528	2,861,286
969	2,866,046	2,870,807	2,875,571	2,880,338	2,885,107	2,889,878	2,894,653	2,899,429	2,904,207	2,908,989
970	2,913,772	2,918,558	2,923,347	2,928,138	2,932,932	2,937,729	2,942,528	2,947,330	2,952,135	2,956,943
971	2,961,753	2,966,566	2,971,381	2,976,199	2,981,020	2,985,843	2,990,670	2,995,498	3,000,330	3,005,164
972	3,010,001	3,014,841	3,019,683	3,024,527	3,029,375	3,034,226	3,039,078	3,043,934	3,048,793	3,053,654
973	3,058,517	3,063,384	3,068,253	3,073,124	3,077,999	3,082,876	3,087,756	3,092,638	3,097,523	3,102,411
974	3,107,301	3,112,194	3,117,090	3,121,989	3,126,890	3,131,794	3,136,700	3,141,609	3,146,521	3,151,436
975	3,156,353	3,161,273	3,166,196	3,171,121	3,176,049	3,180,979	3,185,913	3,190,849	3,195,787	3,200,729
976	3,205,673	3,210,619	3,215,569	3,220,521	3,225,476	3,230,433	3,235,393	3,240,356	3,245,321	3,250,289
977	3,255,260	3,260,234	3,265,210	3,270,189	3,275,170	3,280,154	3,285,141	3,290,131	3,295,123	3,300,118
978	3,305,115	3,310,116	3,315,119	3,320,124	3,325,133	3,330,143	3,335,157	3,340,174	3,345,193	3,350,214
979	3,355,238	3,360,266	3,365,295	3,370,328	3,375,363	3,380,401	3,385,441	3,390,485	3,395,530	3,400,578
980	3,405,630	3,410,683	3,415,740	3,420,800	3,425,863	3,430,929	3,435,998	3,441,070	3,446,145	3,451,222
981	3,456,303	3,461,388	3,466,475	3,471,564	3,476,657	3,481,753	3,486,852	3,491,954	3,497,059	3,502,166
982	3,507,278	3,512,391	3,517,508	3,522,628	3,527,750	3,532,877	3,538,005	3,543,137	3,548,272	3,553,410
983	3,558,550	3,563,694	3,568,841	3,573,990	3,579,144	3,584,299	3,589,458	3,594,620	3,599,784	3,604,952
984	3,610,123	3,615,297	3,620,473	3,625,653	3,630,836	3,636,021	3,641,210	3,646,402	3,651,596	3,656,794
985	3,661,994	3,667,198	3,672,405	3,677,614	3,682,827	3,688,042	3,693,262	3,698,483	3,703,707	3,708,934
986	3,714,165	3,719,398	3,724,635	3,729,875	3,735,118	3,740,363	3,745,611	3,750,863	3,756,117	3,761,375
987	3,766,635	3,771,899	3,777,166	3,782,435	3,787,707	3,792,982	3,798,261	3,803,542	3,808,827	3,814,114
988	3,819,405	3,824,698	3,829,995	3,835,294	3,840,597	3,845,902	3,851,210	3,856,522	3,861,836	3,867,153
989	3,872,474	3,877,797	3,883,123	3,888,453	3,893,785	3,899,120	3,904,458	3,909,800	3,915,144	3,920,491
990	3,925,842	3,931,195	3,936,550	3,941,910	3,947,272	3,952,636	3,958,004	3,963,374	3,968,747	3,974,123
991	3,979,502	3,984,884	3,990,269	3,995,656	4,001,046	4,006,440	4,011,836	4,017,234	4,022,636	4,028,041
992	4,033,448	4,038,859	4,044,271	4,049,688	4,055,107	4,060,528	4,065,953	4,071,381	4,076,811	4,082,244
993	4,087,680	4,093,119	4,098,561	4,104,005	4,109,453	4,114,903	4,120,356	4,125,813	4,131,271	4,136,733
994	4,142,198	4,147,665	4,153,135	4,158,608	4,164,085	4,169,563	4,175,045	4,180,530	4,186,017	4,191,507
995	4,197,001	4,202,497	4,207,996	4,213,497	4,219,002	4,224,510	4,230,020	4,235,533	4,241,049	4,246,568
996	4,252,089	4,257,614	4,263,141	4,268,671	4,274,205	4,279,741	4,285,279	4,290,822	4,296,366	4,301,914
997	4,307,464	4,313,017	4,318,574	4,324,132	4,329,694	4,335,258	4,340,826	4,346,396	4,351,969	4,357,545
998	4,363,125	4,368,706	4,374,290	4,379,878	4,385,468	4,391,061	4,396,657	4,402,256	4,407,858	4,413,462
999	4,419,070	4,424,680	4,430,293	4,435,909	4,441,528	4,447,150	4,452,774	4,458,402	4,464,032	4,469,665

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ELEV. FEET	The Volume Table is in Acre Feet						The Elevation Increment is One Tenth Foot			
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1000	4,475,301	4,480,940	4,486,582	4,492,228	4,497,876	4,503,527	4,509,182	4,514,839	4,520,500	4,526,164
1001	4,531,830	4,537,501	4,543,174	4,548,850	4,554,529	4,560,212	4,565,897	4,571,586	4,577,278	4,582,972
1002	4,588,670	4,594,371	4,600,075	4,605,782	4,611,493	4,617,206	4,622,923	4,628,642	4,634,365	4,640,091
1003	4,645,820	4,651,551	4,657,286	4,663,025	4,668,766	4,674,511	4,680,258	4,686,009	4,691,763	4,697,519
1004	4,703,279	4,709,042	4,714,809	4,720,578	4,726,350	4,732,126	4,737,904	4,743,686	4,749,470	4,755,258
1005	4,761,049	4,766,843	4,772,640	4,778,441	4,784,245	4,790,050	4,795,861	4,801,673	4,807,488	4,813,307
1006	4,819,129	4,824,954	4,830,782	4,836,614	4,842,448	4,848,286	4,854,126	4,859,970	4,865,816	4,871,666
1007	4,877,519	4,883,375	4,889,234	4,895,097	4,900,962	4,906,831	4,912,702	4,918,577	4,924,454	4,930,335
1008	4,936,219	4,942,107	4,947,997	4,953,890	4,959,786	4,965,686	4,971,588	4,977,494	4,983,403	4,989,315
1009	4,995,230	5,001,148	5,007,070	5,012,993	5,018,921	5,024,851	5,030,785	5,036,721	5,042,661	5,048,604
1010	5,054,550	5,060,499	5,066,451	5,072,406	5,078,365	5,084,326	5,090,291	5,096,258	5,102,229	5,108,202
1011	5,114,179	5,120,158	5,126,141	5,132,127	5,138,116	5,144,107	5,150,102	5,156,100	5,162,101	5,168,106
1012	5,174,113	5,180,123	5,186,136	5,192,153	5,198,172	5,204,194	5,210,220	5,216,249	5,222,280	5,228,315
1013	5,234,353	5,240,393	5,246,437	5,252,484	5,258,534	5,264,587	5,270,643	5,276,702	5,282,765	5,288,830
1014	5,294,898	5,300,970	5,307,044	5,313,122	5,319,202	5,325,286	5,331,372	5,337,462	5,343,555	5,349,651
1015	5,355,750	5,361,852	5,367,957	5,374,065	5,380,175	5,386,290	5,392,407	5,398,527	5,404,651	5,410,777
1016	5,416,907	5,423,039	5,429,175	5,435,314	5,441,455	5,447,600	5,453,748	5,459,899	5,466,053	5,472,210
1017	5,478,370	5,484,533	5,490,699	5,496,868	5,503,041	5,509,216	5,515,394	5,521,576	5,527,760	5,533,948
1018	5,540,139	5,546,332	5,552,529	5,558,729	5,564,932	5,571,138	5,577,347	5,583,558	5,589,774	5,595,992
1019	5,602,213	5,608,437	5,614,665	5,620,895	5,627,129	5,633,365	5,639,605	5,645,847	5,652,093	5,658,342
1020	5,664,593	5,670,848	5,677,106	5,683,367	5,689,631	5,695,898	5,702,169	5,708,442	5,714,719	5,720,998
1021	5,727,281	5,733,567	5,739,855	5,746,148	5,752,443	5,758,741	5,765,042	5,771,346	5,777,654	5,783,964
1022	5,790,278	5,796,594	5,802,914	5,809,237	5,815,563	5,821,892	5,828,224	5,834,559	5,840,898	5,847,239
1023	5,853,583	5,859,931	5,866,282	5,872,635	5,878,992	5,885,352	5,891,715	5,898,081	5,904,450	5,910,823
1024	5,917,198	5,923,577	5,929,958	5,936,343	5,942,731	5,949,121	5,955,515	5,961,912	5,968,312	5,974,716
1025	5,981,122	5,987,531	5,993,944	6,000,359	6,006,778	6,013,200	6,019,625	6,026,053	6,032,484	6,038,918
1026	6,045,355	6,051,795	6,058,239	6,064,685	6,071,135	6,077,587	6,084,043	6,090,502	6,096,964	6,103,429
1027	6,109,897	6,116,368	6,122,842	6,129,320	6,135,800	6,142,284	6,148,770	6,155,260	6,161,753	6,168,249
1028	6,174,748	6,181,250	6,187,755	6,194,263	6,200,775	6,207,289	6,213,807	6,220,327	6,226,851	6,233,378
1029	6,239,908	6,246,441	6,252,977	6,259,516	6,266,058	6,272,604	6,279,152	6,285,704	6,292,258	6,298,816
1030	6,305,377	6,311,941	6,318,508	6,325,079	6,331,652	6,338,229	6,344,809	6,351,392	6,357,979	6,364,568
1031	6,371,161	6,377,757	6,384,357	6,390,959	6,397,565	6,404,174	6,410,786	6,417,401	6,424,020	6,430,641
1032	6,437,266	6,443,895	6,450,526	6,457,161	6,463,798	6,470,439	6,477,084	6,483,731	6,490,382	6,497,036
1033	6,503,693	6,510,353	6,517,016	6,523,683	6,530,353	6,537,026	6,543,702	6,550,382	6,557,065	6,563,751
1034	6,570,440	6,577,132	6,583,828	6,590,527	6,597,229	6,603,934	6,610,642	6,617,354	6,624,069	6,630,787

The Volume Table is in Acre Feet | *The Elevation Increment is One Tenth Foot*

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1035	6,637,508	6,644,233	6,650,960	6,657,691	6,664,425	6,671,163	6,677,903	6,684,647	6,691,394	6,698,144
1036	6,704,897	6,711,654	6,718,414	6,725,177	6,731,943	6,738,713	6,745,485	6,752,261	6,759,040	6,765,822
1037	6,772,608	6,779,397	6,786,188	6,792,984	6,799,782	6,806,583	6,813,388	6,820,196	6,827,007	6,833,822
1038	6,840,639	6,847,460	6,854,284	6,861,111	6,867,942	6,874,775	6,881,612	6,888,452	6,895,296	6,902,142
1039	6,908,992	6,915,845	6,922,701	6,929,560	6,936,423	6,943,288	6,950,157	6,957,029	6,963,905	6,970,783
1040	6,977,665	6,984,550	6,991,439	6,998,330	7,005,226	7,012,124	7,019,026	7,025,931	7,032,840	7,039,752
1041	7,046,668	7,053,587	7,060,509	7,067,434	7,074,363	7,081,296	7,088,231	7,095,170	7,102,113	7,109,059
1042	7,116,008	7,122,960	7,129,916	7,136,876	7,143,838	7,150,804	7,157,774	7,164,747	7,171,723	7,178,702
1043	7,185,685	7,192,672	7,199,661	7,206,654	7,213,651	7,220,651	7,227,654	7,234,660	7,241,670	7,248,683
1044	7,255,700	7,262,720	7,269,744	7,276,770	7,283,801	7,290,834	7,297,871	7,304,911	7,311,955	7,319,002
1045	7,326,052	7,333,106	7,340,163	7,347,224	7,354,288	7,361,355	7,368,426	7,375,500	7,382,577	7,389,658
1046	7,396,742	7,403,830	7,410,921	7,418,015	7,425,112	7,432,213	7,439,318	7,446,426	7,453,538	7,460,648
1047	7,467,768	7,474,888	7,482,018	7,489,148	7,496,278	7,503,408	7,510,548	7,517,688	7,524,838	7,531,978
1048	7,539,138	7,546,288	7,553,448	7,560,608	7,567,778	7,574,938	7,582,118	7,589,288	7,596,468	7,603,648
1049	7,610,838	7,618,028	7,625,218	7,632,408	7,639,608	7,646,818	7,654,018	7,661,228	7,668,438	7,675,658
1050	7,682,878	7,690,088	7,697,318	7,704,548	7,711,778	7,719,018	7,726,258	7,733,508	7,740,748	7,748,008
1051	7,755,258	7,762,518	7,769,778	7,777,048	7,784,318	7,791,588	7,798,868	7,806,148	7,813,438	7,820,728
1052	7,828,018	7,835,308	7,842,608	7,849,908	7,857,218	7,864,528	7,871,838	7,879,158	7,886,478	7,893,808
1053	7,901,128	7,908,468	7,915,798	7,923,138	7,930,478	7,937,828	7,945,178	7,952,528	7,959,888	7,967,248
1054	7,974,608	7,981,978	7,989,348	7,996,728	8,004,108	8,011,488	8,018,878	8,026,258	8,033,658	8,041,048
1055	8,048,458	8,055,858	8,063,268	8,070,678	8,078,088	8,085,508	8,092,928	8,100,358	8,107,788	8,115,218
1056	8,122,658	8,130,098	8,137,538	8,144,988	8,152,438	8,159,898	8,167,348	8,174,818	8,182,278	8,189,748
1057	8,197,218	8,204,698	8,212,178	8,219,658	8,227,148	8,234,638	8,242,138	8,249,628	8,257,138	8,264,638
1058	8,272,148	8,279,658	8,287,178	8,294,698	8,302,218	8,309,748	8,317,278	8,324,818	8,332,348	8,339,888
1059	8,347,438	8,354,988	8,362,538	8,370,098	8,377,658	8,385,218	8,392,788	8,400,358	8,407,928	8,415,508
1060	8,423,088	8,430,668	8,438,258	8,445,858	8,453,448	8,461,048	8,468,648	8,476,258	8,483,868	8,491,488
1061	8,499,098	8,506,718	8,514,348	8,521,978	8,529,608	8,537,248	8,544,888	8,552,528	8,560,168	8,567,818
1062	8,575,478	8,583,138	8,590,798	8,598,458	8,606,128	8,613,798	8,621,478	8,629,158	8,636,838	8,644,528
1063	8,652,218	8,659,908	8,667,608	8,675,308	8,683,008	8,690,718	8,698,428	8,706,148	8,713,868	8,721,588
1064	8,729,308	8,737,038	8,744,778	8,752,508	8,760,248	8,767,998	8,775,748	8,783,498	8,791,248	8,799,008
1065	8,806,768	8,814,538	8,822,308	8,830,078	8,837,858	8,845,638	8,853,418	8,861,208	8,868,998	8,876,798
1066	8,884,598	8,892,398	8,900,208	8,908,008	8,915,828	8,923,638	8,931,458	8,939,288	8,947,118	8,954,948
1067	8,962,778	8,970,618	8,978,458	8,986,308	8,994,158	9,002,008	9,009,868	9,017,728	9,025,588	9,033,458
1068	9,041,328	9,049,198	9,057,078	9,064,958	9,072,848	9,080,738	9,088,628	9,096,528	9,104,428	9,112,328
1069	9,120,238	9,128,148	9,136,058	9,143,978	9,151,898	9,159,828	9,167,758	9,175,688	9,183,618	9,191,558

The Volume Table is in Acre Feet

The Elevation Increment is One Tenth Foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1070	9,199,508	9,207,438	9,215,388	9,223,348	9,231,298	9,239,268	9,247,228	9,255,188	9,263,158	9,271,138
1071	9,279,118	9,287,098	9,295,078	9,303,068	9,311,058	9,319,048	9,327,048	9,335,048	9,343,048	9,351,058
1072	9,359,068	9,367,088	9,375,108	9,383,128	9,391,148	9,399,178	9,407,208	9,415,248	9,423,278	9,431,318
1073	9,439,368	9,447,418	9,455,468	9,463,518	9,471,588	9,479,648	9,487,708	9,495,778	9,503,848	9,511,928
1074	9,520,008	9,528,088	9,536,178	9,544,268	9,552,358	9,560,448	9,568,548	9,576,658	9,584,758	9,592,868
1075	9,600,988	9,609,098	9,617,218	9,625,348	9,633,468	9,641,598	9,649,738	9,657,868	9,666,008	9,674,158
1076	9,682,298	9,690,448	9,698,608	9,706,768	9,714,928	9,723,088	9,731,258	9,739,428	9,747,598	9,755,778
1077	9,763,958	9,772,148	9,780,328	9,788,528	9,796,718	9,804,918	9,813,118	9,821,328	9,829,528	9,837,748
1078	9,845,958	9,854,178	9,862,398	9,870,628	9,878,858	9,887,088	9,895,318	9,903,558	9,911,798	9,920,048
1079	9,928,298	9,936,548	9,944,808	9,953,068	9,961,328	9,969,598	9,977,868	9,986,138	9,994,418	10,002,698
1080	10,010,978	10,019,268	10,027,558	10,035,848	10,044,148	10,052,448	10,060,748	10,069,058	10,077,368	10,085,678
1081	10,093,998	10,102,318	10,110,648	10,118,978	10,127,308	10,135,648	10,143,988	10,152,328	10,160,678	10,169,028
1082	10,177,378	10,185,738	10,194,098	10,202,458	10,210,828	10,219,198	10,227,568	10,235,948	10,244,328	10,252,718
1083	10,261,098	10,269,498	10,277,888	10,286,288	10,294,688	10,303,098	10,311,508	10,319,918	10,328,338	10,336,758
1084	10,345,178	10,353,608	10,362,038	10,370,468	10,378,908	10,387,348	10,395,798	10,404,238	10,412,698	10,421,148
1085	10,429,608	10,438,068	10,446,538	10,455,008	10,463,478	10,471,948	10,480,428	10,488,918	10,497,408	10,505,898
1086	10,514,388	10,522,888	10,531,388	10,539,888	10,548,398	10,556,908	10,565,428	10,573,938	10,582,468	10,590,988
1087	10,599,518	10,608,048	10,616,588	10,625,128	10,633,668	10,642,218	10,650,768	10,659,318	10,667,878	10,676,438
1088	10,684,998	10,693,568	10,702,138	10,710,708	10,719,288	10,727,868	10,736,458	10,745,048	10,753,638	10,762,228
1089	10,770,828	10,779,428	10,788,038	10,796,648	10,805,258	10,813,878	10,822,498	10,831,118	10,839,748	10,848,378
1090	10,857,008	10,865,648	10,874,288	10,882,938	10,891,588	10,900,238	10,908,888	10,917,548	10,926,208	10,934,878
1091	10,943,548	10,952,218	10,960,888	10,969,568	10,978,258	10,986,938	10,995,628	11,004,318	11,013,018	11,021,718
1092	11,030,418	11,039,128	11,047,838	11,056,548	11,065,268	11,073,988	11,082,708	11,091,438	11,100,168	11,108,908
1093	11,117,638	11,126,378	11,135,128	11,143,878	11,152,628	11,161,378	11,170,138	11,178,898	11,187,668	11,196,438
1094	11,205,208	11,213,988	11,222,768	11,231,548	11,240,338	11,249,118	11,257,918	11,266,708	11,275,508	11,284,318
1095	11,293,118	11,301,874	11,310,642	11,319,413	11,328,187	11,336,955	11,345,735	11,354,517	11,363,302	11,372,091
1096	11,380,873	11,389,669	11,398,467	11,407,269	11,416,065	11,424,872	11,433,683	11,442,496	11,451,304	11,460,124
1097	11,468,946	11,477,774	11,486,605	11,495,430	11,504,267	11,513,107	11,521,951	11,530,788	11,539,638	11,548,491
1098	11,557,347	11,566,199	11,575,063	11,583,930	11,592,800	11,601,674	11,610,541	11,619,420	11,628,303	11,637,188
1099	11,646,067	11,654,963	11,663,863	11,672,766	11,681,665	11,690,577	11,699,492	11,708,411	11,717,332	11,726,248
1100	11,735,176	11,744,110	11,753,046	11,761,977	11,770,921	11,779,867	11,788,816	11,797,760	11,806,716	11,815,675
1101	11,824,637	11,833,596	11,842,568	11,851,543	11,860,521	11,869,502	11,878,478	11,887,466	11,896,457	11,905,451
1102	11,914,439	11,923,442	11,932,449	11,941,459	11,950,462	11,959,479	11,968,498	11,977,521	11,986,548	11,995,569
1103	12,004,602	12,013,642	12,022,685	12,031,723	12,040,773	12,049,827	12,058,884	12,067,935	12,077,000	12,086,068
1104	12,095,140	12,104,218	12,113,291	12,122,376	12,131,466	12,140,560	12,149,649	12,158,751	12,167,856	12,176,965

The Volume Table is in Acre Feet

The Elevation Increment is One Tenth Foot

ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1105	12,186,069	12,195,188	12,204,310	12,213,436	12,222,566	12,231,691	12,240,829	12,249,971	12,259,116	12,268,257
1106	12,277,410	12,286,570	12,295,735	12,304,895	12,314,069	12,323,248	12,332,431	12,341,618	12,350,799	12,359,994
1107	12,369,192	12,378,397	12,387,596	12,396,809	12,406,025	12,415,246	12,424,461	12,433,690	12,442,923	12,452,160
1108	12,461,402	12,470,641	12,479,894	12,489,152	12,498,415	12,507,674	12,516,947	12,526,226	12,535,510	12,544,788
1109	12,554,080	12,563,380	12,572,685	12,581,994	12,591,297	12,600,614	12,609,935	12,619,259	12,628,578	12,637,911
1110	12,647,247	12,656,593	12,665,934	12,675,288	12,684,647	12,694,010	12,703,378	12,712,740	12,722,115	12,731,494
1111	12,740,876	12,750,259	12,759,656	12,769,056	12,778,459	12,787,856	12,797,267	12,806,680	12,816,098	12,825,518
1112	12,834,933	12,844,365	12,853,801	12,863,240	12,872,674	12,882,122	12,891,573	12,901,027	12,910,476	12,919,937
1113	12,929,401	12,938,873	12,948,349	12,957,819	12,967,301	12,976,787	12,986,276	12,995,758	13,005,254	13,014,753
1114	13,024,255	13,033,755	13,043,268	13,052,784	13,062,304	13,071,820	13,081,348	13,090,880	13,100,416	13,109,955
1115	13,119,488	13,129,038	13,138,592	13,148,149	13,157,701	13,167,265	13,176,834	13,186,406	13,195,973	13,205,552
1116	13,215,135	13,224,725	13,234,319	13,243,906	13,253,508	13,263,114	13,272,724	13,282,327	13,291,944	13,301,563
1117	13,311,187	13,320,806	13,330,439	13,340,074	13,349,713	13,359,356	13,368,991	13,378,640	13,388,291	13,397,946
1118	13,407,594	13,417,257	13,426,924	13,436,593	13,446,256	13,455,932	13,465,610	13,475,292	13,484,977	13,494,656
1119	13,504,347	13,514,044	13,523,744	13,533,437	13,543,143	13,552,852	13,562,564	13,572,270	13,581,989	13,591,710
1120	13,601,435	13,611,165	13,620,889	13,630,625	13,640,365	13,650,108	13,659,844	13,669,593	13,679,346	13,689,102
1121	13,698,852	13,708,616	13,718,384	13,728,156	13,737,930	13,747,699	13,757,481	13,767,266	13,777,056	13,786,839
1122	13,796,636	13,806,438	13,816,244	13,826,045	13,835,858	13,845,676	13,855,497	13,865,323	13,875,142	13,884,976
1123	13,894,813	13,904,656	13,914,494	13,924,345	13,934,201	13,944,060	13,953,913	13,963,780	13,973,651	13,983,526
1124	13,993,404	14,003,279	14,013,168	14,023,061	14,032,959	14,042,853	14,052,762	14,062,675	14,072,592	14,082,504
1125	14,092,429	14,102,361	14,112,298	14,122,238	14,132,173	14,142,122	14,152,075	14,162,033	14,171,985	14,181,950
1126	14,191,921	14,201,897	14,211,868	14,221,853	14,231,844	14,241,841	14,251,832	14,261,837	14,271,846	14,281,859
1127	14,291,876	14,301,890	14,311,917	14,321,949	14,331,984	14,342,014	14,352,057	14,362,105	14,372,156	14,382,201
1128	14,392,261	14,402,327	14,412,397	14,422,471	14,432,539	14,442,624	14,452,712	14,462,804	14,472,891	14,482,991
1129	14,493,095	14,503,206	14,513,310	14,523,428	14,533,550	14,543,676	14,553,806	14,563,929	14,574,067	14,584,208
1130	14,594,354	14,604,495	14,614,651	14,624,812	14,634,977	14,645,137	14,655,312	14,665,491	14,675,673	14,685,860
1131	14,696,040	14,706,237	14,716,437	14,726,642	14,736,841	14,747,053	14,757,269	14,767,490	14,777,704	14,787,931
1132	14,798,163	14,808,403	14,818,646	14,828,883	14,839,134	14,849,388	14,859,647	14,869,900	14,880,166	14,890,437
1133	14,900,711	14,910,984	14,921,270	14,931,561	14,941,856	14,952,155	14,962,447	14,972,754	14,983,065	14,993,380
1134	15,003,689	15,014,015	15,024,346	15,034,680	15,045,008	15,055,351	15,065,698	15,076,050	15,086,405	15,096,755
1135	15,107,119	15,117,491	15,127,866	15,138,236	15,148,620	15,159,013	15,169,460	15,179,905	15,190,368	15,200,839
1136	15,211,316	15,221,803	15,232,287	15,242,790	15,253,300	15,263,818	15,274,331	15,284,860	15,295,395	15,305,936
1137	15,316,471	15,327,027	15,337,587	15,348,153	15,358,723	15,369,288	15,379,869	15,390,455	15,401,046	15,411,632
1138	15,422,233	15,432,846	15,443,463	15,454,075	15,464,704	15,475,338	15,485,978	15,496,622	15,507,261	15,517,916
1139	15,528,574	15,539,244	15,549,908	15,560,587	15,571,270	15,581,958	15,592,640	15,603,338	15,614,040	15,624,748

	The Volume Table is in Acre Feet								The Elevation Increment is One Tenth Foot	
ELEV. FEET	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1140	15,635,449	15,646,172	15,656,899	15,667,630	15,678,369	15,689,103	15,699,851	15,710,605	15,721,362	15,732,113
1141	15,742,879	15,753,655	15,764,434	15,775,208	15,785,996	15,796,789	15,807,586	15,818,387	15,829,183	15,839,993
1142	15,850,808	15,861,633	15,872,452	15,883,286	15,894,125	15,904,969	15,915,807	15,926,661	15,937,518	15,948,380
1143	15,959,246	15,970,111	15,980,991	15,991,875	16,002,764	16,013,646	16,024,542	16,035,444	16,046,349	16,057,248
1144	16,068,161	16,079,086	16,090,015	16,100,949	16,111,878	16,122,822	16,133,771	16,144,724	16,155,671	16,166,634
1145	16,177,601	16,188,578	16,199,548	16,210,534	16,221,525	16,232,521	16,243,521	16,254,515	16,265,524	16,276,539
1146	16,287,558	16,298,576	16,309,610	16,320,651	16,331,697	16,342,736	16,353,792	16,364,852	16,375,917	16,386,987
1147	16,398,050	16,409,134	16,420,223	16,431,316	16,442,403	16,453,505	16,464,613	16,475,725	16,486,830	16,497,951
1148	16,509,077	16,520,213	16,531,353	16,542,489	16,553,640	16,564,796	16,575,957	16,587,111	16,598,281	16,609,455
1149	16,620,635	16,631,813	16,643,006	16,654,205	16,665,408	16,676,616	16,687,817	16,699,034	16,710,257	16,721,484
1150	16,732,705	16,743,946	16,755,193	16,766,445	16,777,692	16,788,954	16,800,222	16,811,495	16,822,773	16,834,044
1151	16,845,332	16,856,629	16,867,931	16,879,226	16,890,538	16,901,856	16,913,184	16,924,509	16,935,849	16,947,196
1152	16,958,548	16,969,909	16,981,264	16,992,636	17,004,013	17,015,395	17,026,771	17,038,163	17,049,560	17,060,963
1153	17,072,358	17,083,774	17,095,194	17,106,619	17,118,038	17,129,473	17,140,912	17,152,356	17,163,805	17,175,248
1154	17,186,707	17,198,173	17,209,645	17,221,110	17,232,592	17,244,079	17,255,572	17,267,058	17,278,561	17,290,069
1155	17,301,582	17,313,102	17,324,616	17,336,145	17,347,680	17,359,219	17,370,751	17,382,299	17,393,852	17,405,410
1156	17,416,961	17,428,533	17,440,110	17,451,692	17,463,278	17,474,858	17,486,454	17,498,056	17,509,662	17,521,261
1157	17,532,877	17,544,503	17,556,133	17,567,757	17,579,399	17,591,045	17,602,697	17,614,355	17,626,013	17,637,688
1158	17,649,369	17,661,059	17,672,743	17,684,443	17,696,149	17,707,860	17,719,564	17,731,285	17,743,011	17,754,742
1159	17,766,478	17,778,213	17,789,966	17,801,723	17,813,486	17,825,243	17,837,017	17,848,796	17,860,580	17,872,359
1160	17,884,154	17,895,959	17,907,770	17,919,586	17,931,396	17,943,223	17,955,056	17,966,895	17,978,727	17,990,577
1161	18,002,432	18,014,297	18,026,155	18,038,031	18,049,913	18,061,800	18,073,692	18,085,579	18,097,483	18,109,392
1162	18,121,307	18,133,220	18,145,150	18,157,086	18,169,027	18,180,963	18,192,915	18,204,874	18,216,838	18,228,808
1163	18,240,771	18,252,756	18,264,747	18,276,743	18,288,733	18,300,740	18,312,753	18,324,771	18,336,783	18,348,813
1164	18,360,849	18,372,898	18,384,952	18,397,000	18,409,066	18,421,138	18,433,215	18,445,288	18,457,379	18,469,475
1165	18,481,578	18,493,682	18,505,803	18,517,931	18,530,065	18,542,192	18,554,338	18,566,490	18,578,648	18,590,813
1166	18,602,972	18,615,157	18,627,348	18,639,546	18,651,737	18,663,947	18,676,163	18,688,386	18,700,602	18,712,837
1167	18,725,078	18,737,332	18,749,591	18,761,845	18,774,117	18,786,395	18,798,681	18,810,960	18,823,259	18,835,564
1168	18,847,874	18,860,185	18,872,514	18,884,850	18,897,192	18,909,540	18,921,883	18,934,246	18,946,614	18,958,990
1169	18,971,360	18,983,755	18,996,158	19,008,568	19,020,971	19,033,396	19,045,830	19,058,271	19,070,719	19,083,161
1170	19,095,622	19,108,095	19,120,575	19,133,050	19,145,543	19,158,043	19,170,549	19,183,050	19,195,569	19,208,096
1171	19,220,629	19,233,174	19,245,714	19,258,274	19,270,841	19,283,415	19,295,984	19,308,573	19,321,169	19,333,773
1172	19,346,370	19,358,992	19,371,621	19,384,257	19,396,900	19,409,537	19,422,194	19,434,859	19,447,530	19,460,196
1173	19,472,881	19,485,578	19,498,282	19,510,980	19,523,698	19,536,423	19,549,156	19,561,895	19,574,629	19,587,383
1174	19,600,144	19,612,916	19,625,682	19,638,469	19,651,263	19,664,065	19,676,862	19,689,679	19,702,502	19,715,333

	The Volume Table is in Acre Feet							*The Elevation Increment is One Tenth Foot*		
ELEV. FEET	*.0*	*.1*	*.2*	*.3*	*.4*	*.5*	*.6*	*.7*	*.8*	*.9*
1175	19,728,171	19,741,007	19,753,863	19,766,726	19,779,595	19,792,459	19,805,342	19,818,232	19,831,128	19,844,018
1176	19,856,928	19,869,849	19,882,777	19,895,711	19,908,639	19,921,587	19,934,541	19,947,501	19,960,455	19,973,429
1177	19,986,408	19,999,398	20,012,381	20,025,382	20,038,390	20,051,404	20,064,424	20,077,437	20,090,469	20,103,508
1178	20,116,552	20,129,594	20,142,655	20,155,722	20,168,796	20,181,862	20,194,948	20,208,040	20,221,140	20,234,233
1179	20,247,346	20,260,468	20,273,595	20,286,729	20,299,856	20,313,002	20,326,154	20,339,313	20,352,464	20,365,633
1180	20,378,809	20,391,994	20,405,172	20,418,369	20,431,572	20,444,780	20,457,994	20,471,200	20,484,425	20,497,657
1181	20,510,893	20,524,126	20,537,378	20,550,636	20,563,900	20,577,156	20,590,432	20,603,718	20,617,012	20,630,311
1182	20,643,604	20,656,918	20,670,239	20,683,565	20,696,884	20,710,222	20,723,566	20,736,916	20,750,258	20,763,620
1183	20,776,987	20,790,363	20,803,745	20,817,119	20,830,513	20,843,912	20,857,317	20,870,715	20,884,133	20,897,556
1184	20,910,985	20,924,409	20,937,852	20,951,301	20,964,757	20,978,219	20,991,673	21,005,147	21,018,626	21,032,113
1185	21,045,591	21,059,092	21,072,599	21,086,112	21,099,617	21,113,143	21,126,675	21,140,213	21,153,757	21,167,294
1186	21,180,851	21,194,417	21,207,989	21,221,554	21,235,139	21,248,730	21,262,328	21,275,918	21,289,528	21,303,144
1187	21,316,767	21,330,398	21,344,022	21,357,666	21,371,316	21,384,972	21,398,623	21,412,294	21,425,972	21,439,655
1188	21,453,331	21,467,030	21,480,734	21,494,445	21,508,162	21,521,871	21,535,601	21,549,337	21,563,079	21,576,814
1189	21,590,568	21,604,332	21,618,101	21,631,863	21,645,644	21,659,433	21,673,230	21,687,034	21,700,830	21,714,646
1190	21,728,469	21,742,299	21,756,122	21,769,965	21,783,814	21,797,669	21,811,517	21,825,384	21,839,257	21,853,136
1191	21,867,022	21,880,901	21,894,801	21,908,707	21,922,618	21,936,523	21,950,447	21,964,378	21,978,315	21,992,244
1192	22,006,194	22,020,152	22,034,117	22,048,074	22,062,052	22,076,036	22,090,027	22,104,024	22,118,014	22,132,024
1193	22,146,040	22,160,065	22,174,082	22,188,120	22,202,164	22,216,215	22,230,258	22,244,322	22,258,392	22,272,469
1194	22,286,552	22,300,630	22,314,729	22,328,834	22,342,947	22,357,052	22,371,178	22,385,311	22,399,450	22,413,583
1195	22,427,736	22,441,898	22,456,066	22,470,242	22,484,409	22,498,598	22,512,793	22,526,995	22,541,189	22,555,403
1196	22,569,624	22,583,853	22,598,074	22,612,315	22,626,563	22,640,816	22,655,077	22,669,329	22,683,602	22,697,881
1197	22,712,166	22,726,445	22,740,745	22,755,051	22,769,364	22,783,668	22,797,994	22,812,326	22,826,664	22,841,009
1198	22,855,346	22,869,706	22,884,072	22,898,445	22,912,810	22,927,196	22,941,588	22,955,986	22,970,376	22,984,788
1199	22,999,205	23,013,631	23,028,063	23,042,486	23,056,931	23,071,381	23,085,838	23,100,287	23,114,756	23,129,232
1200	23,143,714	23,158,189	23,172,685	23,187,187	23,201,696	23,216,210	23,230,717	23,245,244	23,259,778	23,274,317
1201	23,288,849	23,303,403	23,317,963	23,332,531	23,347,093	23,361,679	23,376,270	23,390,869	23,405,473	23,420,070
1202	23,434,688	23,449,314	23,463,947	23,478,573	23,493,220	23,507,875	23,522,542	23,537,214	23,551,910	23,566,614
1203	23,581,326	23,596,048	23,610,761	23,625,496	23,640,238	23,654,986	23,669,726	23,684,487	23,699,255	23,714,029
1204	23,728,795	23,743,583	23,758,378	23,773,180	23,787,988	23,802,788	23,817,609	23,832,438	23,847,273	23,862,100
1205	23,876,950	23,891,808	23,906,673	23,921,533	23,936,420	23,951,314	23,966,214	23,981,107	23,996,021	24,010,942
1206	24,025,869	24,040,805	24,055,733	24,070,682	24,085,638	24,100,602	24,115,557	24,130,533	24,145,516	24,160,506
1207	24,175,487	24,190,492	24,205,504	24,220,521	24,235,546	24,250,561	24,265,598	24,280,641	24,295,691	24,310,733
1208	24,325,795	24,340,866	24,355,943	24,371,012	24,386,102	24,401,199	24,416,302	24,431,410	24,446,511	24,461,632
1209	24,476,760	24,491,897	24,507,024	24,522,173	24,537,328	24,552,490	24,567,642	24,582,816	24,597,996	24,613,183

ELEV. FEET	Appendix IV 2009 Lake Mead Live Capacity – Boulder City, NV Area - Capacity Tables									
The Volume Table is in Acre Feet						*The Elevation Increment is One Tenth Foot*				
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
1210	24,628,375	24,643,561	24,658,768	24,673,981	24,689,201	24,704,411	24,719,643	24,734,881	24,750,126	24,765,361
1211	24,780,617	24,795,882	24,811,152	24,826,429	24,841,697	24,856,986	24,872,281	24,887,581	24,902,873	24,918,186
1212	24,933,504	24,948,830	24,964,147	24,979,485	24,994,828	25,010,178	25,025,534	25,040,879	25,056,247	25,071,619
1213	25,086,998	25,102,368	25,117,760	25,133,158	25,148,561	25,163,954	25,179,369	25,194,790	25,210,216	25,225,648
1214	25,241,070	25,256,515	25,271,966	25,287,423	25,302,869	25,318,337	25,333,811	25,349,290	25,364,760	25,380,251
1215	25,395,747	25,411,250	25,426,759	25,442,258	25,457,777	25,473,302	25,488,833	25,504,353	25,519,894	25,535,440
1216	25,550,992	25,566,534	25,582,098	25,597,666	25,613,240	25,628,819	25,644,388	25,659,978	25,675,573	25,691,174
1217	25,706,764	25,722,375	25,737,993	25,753,615	25,769,227	25,784,860	25,800,499	25,816,142	25,831,776	25,847,430
1218	25,863,090	25,878,756	25,894,427	25,910,088	25,925,771	25,941,458	25,957,151	25,972,833	25,988,537	26,004,246
1219	26,019,960	26,035,665	26,051,391	26,067,122	26,082,859	26,098,601	26,114,333	26,130,086	26,145,844	26,161,608
1220	26,177,361	26,193,137	26,208,918	26,224,705	26,240,482	26,256,280	26,272,084	26,287,893	26,303,708	26,319,512
1221	26,335,338	26,351,171	26,367,010	26,382,838	26,398,687	26,414,543	26,430,404	26,446,255	26,462,128	26,478,007
1222	26,493,892	26,509,784	26,525,666	26,541,570	26,557,481	26,573,397	26,589,303	26,605,232	26,621,166	26,637,107
1223	26,653,038	26,668,992	26,684,951	26,700,918	26,716,890	26,732,852	26,748,836	26,764,826	26,780,822	26,796,808
1224	26,812,816	26,828,830	26,844,850	26,860,861	26,876,893	26,892,930	26,908,974	26,925,022	26,941,061	26,957,121
1225	26,973,187	26,989,258	27,005,320	27,021,403	27,037,492	27,053,586	27,069,669	27,085,775	27,101,885	27,118,002
1226	27,134,124	27,150,236	27,166,369	27,182,508	27,198,653	27,214,788	27,230,944	27,247,105	27,263,271	27,279,428
1227	27,295,606	27,311,790	27,327,980	27,344,175	27,360,360	27,376,566	27,392,778	27,408,995	27,425,202	27,441,430
1228	27,457,664	27,473,905	27,490,135	27,506,387	27,522,645	27,538,909	27,555,178	27,571,436	27,587,716	27,604,003
1229	27,620,294									

Appendix V

54
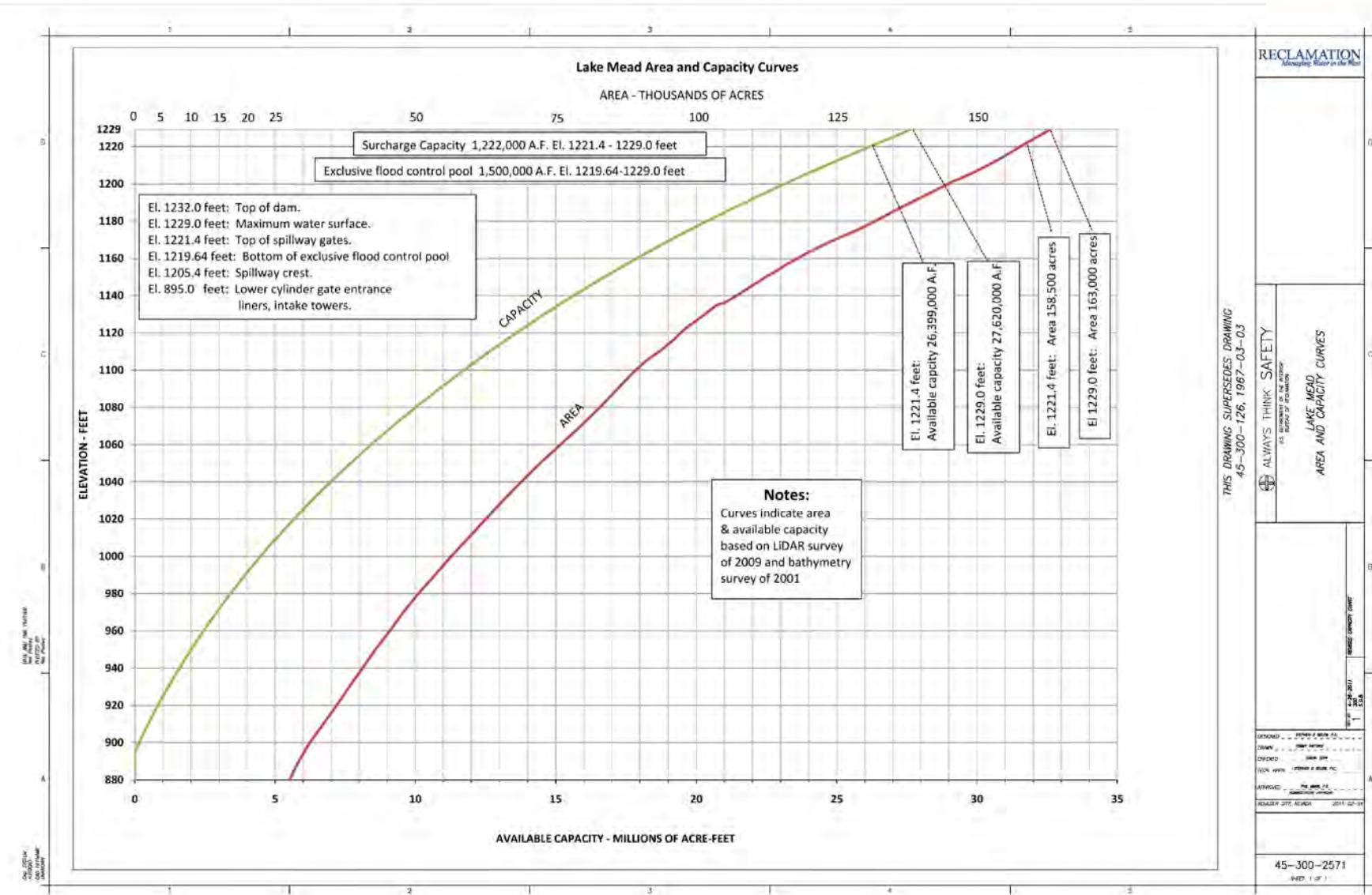
Appendix VI

7-1686 (5-06)
Bureau of Reclamation

RESERVOIR CAPACITY ALLOCATIONS

TYPE OF DAM Concrete, thick-arch	REGION LC	STATE Arizona-Nevada
OPERATED BY Bureau of Reclamation	Lake Mead	RESERVOIR
CREST LENGTH 1,244 FT. CREST WIDTH 45 FT.	Hoover	DAM
VOLUME OF DAM 4,400,000 CU YD.	Boulder Canyon	PROJECT
CONSTRUCTION PERIOD 1931-1936	LCDO	DIVISION
STREAM Colorado River		UNIT
RES AREA 162,900 ACRES AT EL 1229 FT	Operational	STATUS OF DAM

ORIGINATED BY:

ST   LC-4631   01/25/2011
(Initials)   (Code)   (Date)

APPROVED BY:

(Initials)   (Code)   (Date)

CREST OF DAM (without camber)   EL 1232.0

} FREEBOARD 3.0 FT.

MAXIMUM WATER SURFACE   EL 1229.0

SURCHARGE

} 1,222,000 A.F.

TOP OF EXCLUSIVE FLOOD CONTROL EL 1229.0

EXCLUSIVE

} FLOOD CONTROL 1,500,000 A.F

TOP OF JOINT USE   1/   EL 1219.64

} JOINT USE 18,438,000 A.F.

USES: F.C. M&I, I, P

TOP OF ACTIVE CONSERVATION   EL

ACTIVE

} CONSERVATION   A.F.

USES:

TOP OF INACTIVE (2)   EL 1050

INACTIVE

} 7,683,000 A.F.

TOP OF DEAD   EL 895.0

} DEAD 2,547,000 A.F.

STREAMBED AT DAM AXIS   EL 640.0

LOWEST POINT OF FOUNDATION EXCAVATION   EL 506.1

Left-side vertical annotations: Maximum height (structural height) 726; Height above streambed 592; Total capacity a.f.(1) 30,167,000; Live capacity 27,620,000 2/; Active capacity a.f. 19,937,000

(1) Includes_____ a.f. allowance for_____ year sediment deposition between streambed and EL_____ of which_____ a.f. is above EL_____.
(2) Established by Minimum Power Pool _____.

REFERENCES AND COMMENTS:

Surface Area and Capacity tables dated 1/2011 reflecting 2001 Sedimentation Survey combined with 2009 LiDAR Survey conditions.

1/ Top of spillway gates, in raised position, is at elevation 1221.4 feet. Between elevation 1221.4 feet and 1229.0 feet, there are 1,222,000 A.F. of capacity (surcharge).

2/ Public Law 90-537, Colorado River Basin Project Act Title VI, General Provisions: Definitions: Conditions, Section 606(d) states "(d) "Active Storage" means that amount of water in reservoir storage, exclusive of bank storage, which can be released through the existing outlet works." Therefore, "Active Storage" for Lake Mead is equivalent to live capacity as given on this sheet.

Glossary of Terms

A

Aerial Image

Images of the Earth's surface taken from the air with a camera, either hand held or mounted, in an aircraft, helicopter, balloon, rocket, kite, skydiver or similar vehicle. Normally, aerial images are not considered as "aerial" when collected by orbiting spacecraft.

Aeronautical Chart

A chart that guides pilots in navigating the skies. These charts can show the locations of control towers and radio stations along with the area that their communication devices cover. They may also show navigation aids along the way, alternative landing areas in case of an in-flight emergency, and other useful information such as important radio frequencies and airspace boundaries.

B

BMP

(Bitmap)- A graphics format used internally by the Microsoft Windows and OS/2 graphics subsystem (GDI), and used commonly as a simple graphics file format on those platforms. These files are usually not compressed.

C

CAD

(Computer Aided Design)- The use of a wide range of computer-based tools that assist engineers, architects and other design professionals in their design activities. These programs can range from 2D vector modeling to 3D full surface modeling.

Cloud Cover

The fraction of the sky covered by clouds in an aerial or satellite image. Normally, less than 10% cloud cover is acceptable.

Compression

Applying data compression to an image to reduce redundancy in the image data in order to more efficiently transmit and store the image.

Coordinates

A set of numbers that define the position of some object in reference to a reference point or origin on coordinate plain. On the Earth, these numbers define the location of any point on Earth in reference to a geographical coordinate system.

D

Datum

A reference from which measurements are made. In georeferencing, a datum is a point on the Earth's surface from which surface measurements are made.

Dead Storage

Dead storage is the volume of water in the reservoir at the elevation at which water can no longer be released from the dam. For Lake Mead, that elevation is 895 feet.

Degrees

A measurement of circular plane angle in reference to a meridian that indicates position along a great circle on a sphere. The Earth is divided into 360 degrees.

DEM

(Digital Elevation Model)- A digital representation of ground surface topography or terrain. DEMs are often used in GIS and are usually developed using remote sensing techniques. They are also known as Digital Terrain Models (DTM).

DOQ

(Digital Orthophoto Quadrangle)- A digital mapping product that combines the geometric qualities of a map with the detail of an aerial photograph. DOQs are digitally derived aerial photos that have been corrected so image distortion caused by perspective, camera tilt, and terrain relief are removed. Distances, bearings, and area calculations can all be measured on DOQs. Also known as Digital Orthophoto Quarter Quadrangle (DOQQ), which is one quarter of a standard DOQ

DVD

(Digital Video Disc)- An optical disc used to store digital files and media with a single layer capacity of 4.7 GB

E

Easting

A measurement used in the UTM coordinate system that measures the distance East of a point from the central meridian of a zone. The central meridian is given a false easting value of 500,000 so that there are no negative numbers. Any point west of the meridian will have a value less than 500,000 and any point east will be greater.

G

Geo-reference

The process of defining the position of something in space with respect to Earth. This process is carried over to imagery in that the corner points and center point of the image must be defined with respect to the Earth.

Geographic Projection

A very simple map projection which is characterized by equidistant meridians and parallels. Also known as equarectangular projection.

Geospatial

A term widely used to describe the combination of spatial software and analytical methods with terrestrial or geographic datasets. The term is often used in conjunction with geographic information systems and geomatics. In the case of vector-based GIS this typically means operations such as map overlay (combining two or more maps or map layers according to predefined rules), simple buffering (identifying regions of a map within a specified distance of one or more features, such as towns, roads or rivers) and similar basic operations.

GIF

(Graphics Interchange Format)- An 8-bit-per pixel image format that is in wide use on the web and is used widely for basic animation. The 256 color palette for GIF images does not make it very good at reproducing photographs.

Gigabyte

A unit of computer storage equal to one billion bytes.

GIS

(Geographic Information System)- A computer system capable of allowing users to import, integrate, analyze, and display geo-referenced data. GIS is different from topography in that it can be used to depict and analyze geographically dependent phenomena.

GPS

(Global Positioning System)- The only fully functional Global Navigation Satellite System. GPS was developed by the United States Government and is a public good that is free for civilian use, despite an annual cost over $750 million. GPS coordinates are sometimes based on Latitude and Longitude, but LCRO-GIS normally advises the use of UTM coordinates.   These coordinates are provided by receiving signals from at least three satellites and then using trilateration to determine a position.

H

Hyperspectral

The collection of imagery using a vast portion of the light spectrum, beyond visible light. Different elements within the image leave different marks, or "signatures" in each of the various bands of the spectrum. By analyzing these marks, one can determine the identity of objects in the image that would not be possible with conventional imaging.

I

Image Compression

The application of data compression on imagery. The object of compression is to reduce redundancy within the image file in order to make transmission and storage more efficient.

Infrared

Energy emission of a wave length longer than that of visible light. Infrared radiation can be used to determine the surface temperature of an object.

J

JPEG

(Joint Photographic Experts Group)- A commonly used standard method of compression for digital images. JPEG refers to both the file format and the codec, which defines how the image is broken down into bytes and then rebuilt into an image.

L

Latitude

A number that gives the location of a place on Earth north or south of the Equator. This number is given in degrees. In some cases, this number is broken down into degrees, minutes, and seconds, where a minute is one sixtieth of a degree and one second is one sixtieth of a minute. A negative value for the degree indicates that the location is south of the Equator.

LiDAR

(Light Detection And Ranging)- An optical remote sensing technology in which light emission is measured and used to determine distance, shape, and other properties of a distant object. This can be done in a passive mode in which only output light from other objects is measured or in an active mode in which lasers or light are output by the apparatus and then the time delay between emission and reception of the reflected signal is used to calculate information about the target. This is very similar to RADAR except that RADAR uses sound where as LiDAR uses light.

Live Capacity

Live capacity is the volume of water that can be released from the dam. For Lake Mead the live capacity is the volume of water above elevation 895 feet and below elevation 1229 feet. All water below elevation 895 feet is known as dead storage.

Longitude

A number that gives the location of a place on Earth east or west of the Prime Meridian. This number is given in degrees. In some cases, this number is broken down into degrees, minutes, and seconds, where a minute is one sixtieth of a degree and one second is one sixtieth of a minute. A negative value for the degree indicates that the location is west of the Prime Meridian.

M

Megabyte

A unit of computer storage equal to one million bytes.

Minutes

In the sense of geography, a subdivision of a degree that is equal to one sixtieth of a degree.

Multi-Spectral

An imaging technology that can capture light from frequencies beyond the visible light spectrum, such as infrared and electromagnetic.

N

NAD83

The North American Datum as established in 1983. This datum is the result of increases in technology in regards to remote sensing and is based on the GRS80 Ellipsoid.

Natural Color

Color as seen by the human eye. Composed of six unique colors and combinations of these colors.

NED

(National Elevation Dataset)- A seamless set of data giving the elevation of the entire United States and all island territories composed by the USGS.

Northing

The distance from the Equator when using UTM Coordinates. When in the northern hemisphere, the value at the Equator is zero and increases to 9,328,000 at the 84th Parallel. When in the southern hemisphere, the value at the Equator is given a false northing of 10,000,000 and anywhere south is a smaller number. This is done so that no northing coordinate is zero.

O

Orthographic

The representation of a three dimensional object in two dimensions. A flat map is an orthographic projection of the world.

Orthorectified

The process of manipulating imagery that was taken at an angle other than perpendicular to the Earth's surface so that it appears as if it was taken at a right angle with respect to the surface in terms of the geographic information associated with the image. This process allows the images to be lined up and joined into one larger seamless image.

Overlay

A semi-transparent layer placed over an image that provides information related to the image. An overlay can be as simple as the road names over the roads and can be as complex as highlighting all areas that may be subject to a natural disaster, such as floods or landslides.

P

Panchromatic

A type of black and white imagery that is sensitive to all wavelengths of visible light. Panchromatic satellite image devices are generally able to take much higher resolution shots than their multispectral counterparts. Often times, high resolution color imagery is the result of a high resolution panchromatic image being colored in with color data from a lower resolution multispectral image collection.

PDF

(Portable Document Format)- A file format created by Adobe that has the ability to contain text, fonts, images, and 2D vector graphics that make up the file. PDF is used for representing two-dimensional documents in a device independent and display resolution independent fixed-layout document format. For use in Adobe Reader and Acrobat programs. PDF is considered to be the de facto file type for printing.

Pixel

A single point in a digital or graphic image. An image that is 1000 pixels by 1000 pixels is one megapixel.

PLSS

(Public Land Survey System)- A method used in the United States to survey and identify land parcels, particularly for titles and deeds of rural, wild or undeveloped land. Its basic units of area are the township and section. The system was created by the Land Ordinance of 1785 and is in place in most states that were created after this date.

PNG

(Portable Network Graphics)- A bitmapped image format that employs lossless image data compression. PNG was originally intended to replace GIF.

Projection

The process of representing a three dimensional object, such as the Earth, on a two dimensional surface.

R

Remote Sensing

The collection of data using a method in which direct contact is not involved. A common example would be the use of ultrasound to monitor pregnancy. This term is more commonly used to describe the collection and analysis of satellite and aerial imagery. Imagery that is collected from space can be used to monitor an area on Earth without ever physically interacting with the environment.

Resolution

A number that describes the ability of an image to represent a certain area. The value for satellite images is given in meters per pixel, which means that each pixel in the image represents a certain distance on the ground. Once you surpass the native resolution when viewing an image, the image will begin to extrapolate and attempt to fill in the missing pixels. This causes the image to get blurry or block up.

S

Satellite Image

An image taken from a vehicle that is in orbit around the Earth. In simpler terms, an image taken from an artificial satellite.

Seconds

In the sense of geography, a subdivision of a degree that is equal to 1/3600 of a degree. It is therefore one sixtieth of a geographic minute.

Shape File

A digital geospatial vector storage format (point, line polygon) for storing geometric location and associated attribute information developed by ESRI to create compatibility between ESRI software packages and other software. This format lacks the capacity to store topological information.

Spectrum

A plot of light intensity or power as a function of frequency or wavelength. For example, the visible spectrum would be the wavelengths of light that would be visible to the human eye.

Sun-Synchronous

An orbit in which a satellite is lined up directly between the Sun and the Earth. This allows for good lighting and minimizes shadows when taking satellite images.

T

Terabyte

A unit of computer storage equal to one trillion bytes. This is equal to one thousand gigabytes and one million megabytes.

TIFF

(Tagged Image File Format)- An image file type that is popular for high color depth images and for its flexibility.

Topographic Map

A type of detailed map that displays geographic relief information about an area. Points of the same elevation are connected with contour lines. These contour lines each represent a constant elevation and there is a constant contour interval between these lines. Also known as topo maps, they also can show information such as water, vegetation, and even man made objects. Most of the topographic maps available for the United States were commissioned by the USGS.

U

USGS

(United States Geological Survey)- A scientific agency within the Department of the Interior in the United States. The scientists of the USGS study the landscape of the United States, its natural resources, and the natural hazards that threaten it. The organization has four major science disciplines, concerning biology, geography, geology, and hydrology. The USGS is a fact-finding research organization with no regulatory responsibility.

UTM Coordinates

(Universal Transverse Mercator Coordinates)- A grid-based method of specifying locations on the surface of the Earth. The UTM system is not a single map projection. The system instead employs a series of sixty zones, each of which is based on a specifically defined Transverse Mercator projection.

W

WGS84

(World Geodetic System)- A geographic datum developed in 1984 as an update to previous WGS datums. The WGS 84 originally used the GRS 80 reference ellipsoid, but has undergone some minor

refinements in later editions since its initial publication. Most of these refinements are important for high-precision orbital calculations for satellites, but have little practical effect on typical topographical uses.

World File

A plain text file used by GIS software to position and reference an image or map. The specification was developed by ESRI. The lines have the following representations:
Line 1: A, pixel size in the x-direction in map units/pixel
Line 2: D: rotation about y-axis (This is always zero)
Line 3: B: rotation about x-axis (This is always zero)
Line 4: E: pixel size in the y-direction in map units, almost always negative
Line 5: C: x-coordinate of the center of the upper left pixel (Easting UTM coordinate)
Line 6: F: y-coordinate of the center of the upper left pixel (Northing UTM coordinate)

Z

Zone

A subdivision of the Earth's surface under the UTM Coordinate system. The UTM system divides the surface of the Earth between 80° S latitude and 84° N latitude into 60 zones, each 6° of longitude in width and centered over a meridian of longitude. Zones are numbered from 1 to 60. Zone 1 is bounded by longitude 180° to 174° W and is centered on the 177th West meridian. Zone numbering increases in an easterly direction.