

Appendix J6. Potential Critical Course Sediment Yield Area Analysis (On-Site)

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TECHNICAL MEMORANDUM:

Analysis of PCCSYAs for Fanita Ranch

Prepared For:

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TECHNICAL MEMORANDUM: ANALYSIS OF PCCSYAs FOR FANITA RANCH

1. SUMMARY

The purpose of this Technical Memo is to demonstrate that the Fanita Ranch Project generates a No Net Impact in the Critical Coarse Sediment Yield (CCSY) for 3 unnamed tributaries and sub-tributaries emanating from the large contributing area of the project. The tributaries and their corresponding POCs and receiving creeks are as follows: 1 small creek draining SE with 2 POCs which will eventually confluence downstream (POC-8 and POC-9); another creek draining S with 1 POC (POC-10) and a larger creek draining SW with the remaining POCs (POC-1, POC-2, POC-3, POC-4, POC-5, POC-6 and POC-7, plus POC-2A, a POC location within the project upstream of POC-2).

The methodology explained in Appendix H (reference [1]) of the County of San Diego BMP Design Manual (updated by the Critical Coarse Sediment Technical Advisory Committee on March 2016, from which the City of San Diego, The County of San Diego, Technical Experts and representatives of the Water Quality Control Board were present, see Appendix 1) will be used to conclude that the Potential Critical Coarse Sediment Yield Areas (PCCSYAs) within the Fanita Ranch Project are not significant and can be removed from Critical Designation, and their removal will not impact negatively the small receiving streams.

2. METHODOLOGY TO IDENTIFY CCSYAs

2.1 Identification of CCSYAs

The Watershed Management Area Analysis (WMAA) PCCSYA Map prepared by the County of San Diego (commonly known as the Rash Map where PCCSYA are depicted in red) was originally used to identify PCCSYA in the project. However, to properly assess the amount of PCCSYAs, it was decided that a GLU analysis was the most appropriate option. Therefore, red areas were more precisely defined combining Geology, Land Use, and Slopes. Exhibit 1 shows the result of the GLU Analysis.

2.2 First Preliminary Analysis: Preservation of the PCCSYAs

Table 1 displays the PCCSYAs draining to each of the 11 POCs to be analyzed in this report. From the review of Table 1, it is clear than the drainage areas of the following five (5) POCs are not encroaching at all into the GLU-PCCSYA Map: POCs 5, 6, 7, 8 and 9 (shown in italics). Therefore, those POCs can be removed from further consideration, as **100% of the PCCSYAs contributing to these POCs are being preserved and/or by-passed downstream to the receiving POC**. The remaining six (6) POCs will require additional analysis: POCs 1, 2A, 2B, 3, 4 and 10.



Table 1: Preliminary PCCSYA and Encroachment Results

<i>POC</i>	<i>E_p : Existing PCCSYA (ac)</i>	<i>R_p: Remaining PCCSYA (ac)</i>	<i>I_p: Impacted PCCSYA (ac)</i>	<i>Fill & cut slope areas (ac)⁽¹⁾</i>	<i>P_{FC}: PCCSYAs added as fill & cut (ac)⁽²⁾</i>	<i>T_p: Total⁽³⁾ PCCSYA (ac)</i>	<i>E% : % of⁽⁴⁾ Encroachment</i>
1	2.81	2.10	0.71	6.10 + 1.02	2.04	4.14	- 47.3%
2A	17.34	12.29	5.05	0.75 + 0	0.19	12.48	28.0%
2B	1.49	1.13	0.33	2.58 + 0	0.65	1.78	-19.5%
3	15.01	5.49	9.52	4.90 + 0.57	1.51	7.00	53.4%
4	4.26	3.72	0.54	2.12 + 0.00	0.53	4.25	0.2%
5	1.35	1.35	0	0 + 0	0	1.35	0%
6	2.32	2.32	0	0 + 0	0	2.32	0%
7	10.73	10.73	0	0 + 0	0	10.73	0%
8	0.44	0.44	0	0 + 0	0	0.44	0%
9	1.30	1.30	0	0 + 0	0	1.30	0%
10	24.25	22.07	2.18	7.91 + 0.00	1.98	24.05	0.8%

Notes:

(1): Fill areas (F_A) and cut areas (C_A) are measured at the portion of the post-development contributing area that is a slope and also has the proper underlying geology.

(2): PCCSYAs added as fill and cut (P_{FC}) are determined as: P_{FC} = 0.25·F_A + 0.50·C_A

(3): Total PCCSYAs: T_p = R_p + P_{FC}.

(4): % of Encroachment: E% = 100·(E_p - T_p)/E_p

2.3 Second Preliminary Analysis: Simplified Accountability of Fill and Cut Areas defined as PCCSYAs to Update Encroachment (Section not Considered for Preliminary Purposes)

Currently there is not a simplified manner on which fill and cut areas can be accounted as coarse sediment producing areas, but if those fill and cut slopes occur in areas with proper geology, it is expected that at least a portion of those slopes (which will not be draining to detention facilities or BMPs) will be producing critical coarse sediments.

According the Appendix H, and after doing a Regional WMMA Analysis, the County of San Diego was able to demonstrate that an encroachment of 5% would be permissible if their regional WMMA Map is used. However, such encroachment was not defined when a site-specific GLU analysis (that might increase or reduce the results of the Regional Analysis at project level) is carried out. It is a logical conclusion that if 5% encroachment is possible when a WMMA Regional Map is used, then *some*

encroachment equal or smaller than this amount is permissible at a project level under a GLU conditions, because the overall aggregate result of all GLU analysis in all project is equivalent to the Regional analysis performed by the County. Although such GLU encroachment has not been defined, we will demonstrate that an encroachment of less than 1% (an in some cases a negative encroachment) will be obtained. In other words, and at this preliminary level, we are going to demonstrate that an encroachment of less than 1% occurs in four (4) other BMPs in the project, when the incorporation of critical coarse sediments from sloped areas is accounted in a very conservative manner.

To account for PCCSYA in slopes, the following assumptions are made:

- It is assumed that the area of the slopes that produce coarse sediment is equal to the intersection between the slope area and the geologic boundary that produces coarse sediment, as long as the runoff of the area can drain directly to the POC without being treated by a BMP because it is assumed that the geology of the cut areas will remain the same as the geology of the terrain before cutting while the geology of the fill area will be similar than the geology of the soil underneath. This is considered a conservative approximation at this point because it is impossible to establish at this level the proportion of the sloped area that consists of coarse bed material, per requirements of section H.8.2 of Appendix H, page 60. Therefore, grain size distribution analysis (ASTM D422) will be made in the slopes whose sediment production is needed for PCCSYA compliance to verify that the final slope areas producing sediments still satisfy the conditions assumed herein. It should be pointed out that this approximation is typically good for cut slopes, as it implicitly assumes that the underlying soils after the cut have the same geology than the existing surface soils.
- The consideration of cut and slopes as PCCSYAs is associated with the fact that (a) natural slope will be replaced by a higher-inclination artificial slope (so slope cannot be considered as a limiting factor, and as a matter of fact the cut or fill slope will have a tendency to produce more sediment than the natural terrain underneath if all other variables remain constant); (b) land use of the sloped area is natural landscape (and therefore land use cannot be considered as a limiting factor for those areas) and (c) runoff from the areas must not flow into a BMP because coarse sediments will be trapped.
- A practice factor of 0.25 is defined for fill slopes and 0.5 for cut slopes; therefore, 4 acres of fill slope and 2 acres of cut slope are equivalent to 1 acre of PCCSYA in this simplified analysis. This safety factor allows reducing even more the importance of the unknown amount of slope-producing sediment area because the effective sloped area producing coarse sediments is reduced significantly in both cut slopes and fill slopes (and it is also reduced by forcing the slope area to be included in the analysis to be located in the proper geologic soils).

From Table 1, it is clear that four (4) other POCs would satisfy the condition of less than 1% encroachment: POC-1, POC-2 (downstream of 2A), POC-4 and POC-10 (see Exhibit 2, where cut and fill slopes are identified). As a matter of fact, the slope areas located within the contributing areas of POC-1



and POC-2 (not including 2A) will produce more coarse sediment than the PCCSYAs removed, even with the consideration of the Practice Factor of 0.25 for fill, and 0.5 for cut. Therefore, the encroachment for those two (2) POCs is negative because the post-development Critical Coarse Sediment Yield Area has increased, as long as the simplified method to account for cut and fill can be considered satisfactory. In this regard, reader is referred to section 2.3.1 as this simplified method is not part of Appendix H, and is not considered satisfactory.

2.3.1 Removal of Simplified Accountability of Fill and Cut Areas

Following a discussion with the City of Santee and the Third Party reviewer, it was agreed that the inclusion of Fill and Cut Areas is not specifically included as a simplified alternative in Appendix H, and therefore the process explained in Section 2.3 is not valid, even if it follows the intent of the permit in terms of protection of CCSYAs. Therefore, a full No Net Impact Analysis will be carried out for POCs 1, 2B, 4 and 10 (in addition to POCs 2B and 3), following the results displayed in Table 1A, which is identical to Table 1 but without including fill and cut as part of the encroachment calculation.

Table 1A: Preliminary PCCSYA and Encroachment Results (No Cut and Fill included)

<i>POC</i>	<i>E_p : Existing PCCSYA (ac)</i>	<i>R_p : Remaining PCCSYA (ac)</i>	<i>I_p : Impacted PCCSYA (ac)</i>	<i>E% : % of ⁽⁴⁾ Encroachment</i>
1	2.81	2.10	0.71	25.3%
2A	17.34	12.29	5.05	29.1%
2B	1.49	1.13	0.36	24.2%
3	15.01	5.49	9.52	63.4%
4	4.26	3.72	0.54	12.7%
5	1.35	1.35	0	0%
6	2.32	2.32	0	0%
7	10.73	10.73	0	0%
8	0.44	0.44	0	0%
9	1.30	1.30	0	0%
10	24.25	22.07	2.18	9.0%

Note:

(1): % of Encroachment: $E\% = 100 \cdot (E_p - T_p) / E_p = 100 \cdot I_p / E_p$

From the results of this analysis (not including fill and cut coarse sediment production) 6 POCs need further consideration: POCs 1, 2A, 2B, 3, 4 and 10.

2.4 Third Preliminary Analysis: De Minimis PCCSYAs

In accordance to Section H.3.3 of the BMP Manual, all areas that (a) are not significant contributors of bed sediment yield due to their small size and (b) are considered as not practicable to by-pass to the downstream water of the state, can be excluded from the analysis as those areas are below the minimum significant threshold of applicability of protection (i.e. are De Minimis PCCSYAs).

This condition does not apply for the remaining areas draining to POCs 1, 2A, 2B, 3, 4 and 10.

2.5 Refinement Options

2.5.1 *Depositional Analysis*

Depositional analysis does not apply to the remaining 6 POCs as it is estimated that sufficient slopes exist to carry the CCSY to the receiving creeks.

2.5.2 *Threshold Channel Analysis*

A threshold channel is a stream channel in which channel boundary material has no significant movement during the design flow. If there is no movement of bed load in the stream channel, then it is not anticipated that reductions in sediment supply will be detrimental to stream stability because the channel bed consists of the parent material and not coarse sediment supplied from upstream. In such a situation, changes in sediment supply are not considered a geomorphic condition of concern.

To carry out a Threshold Channel analysis, a site visit is needed in the receiving creeks, and detail topographic sections, Manning's coefficient estimates, and slope estimates are needed. At this point, a threshold analysis was not performed, and this option was not used for the remaining six (6) points (POCs 1, 2A, 2B, 3, 4 and 10).

2.5.3 *Coarse Sediment Source Area Verification*

A sieve analysis has not been performed for the remaining areas draining to POC-2A and POC-3. Therefore, this optional analysis is not included. In other words, potential exclusion of any POC contingent upon the results of the Sieve Analysis is not considered necessary at this point.

2.6 Conclusion of the Refinement Options

After a refinement analysis a PCCSYA has two options: it is either a Critical Coarse Sediment Yield Area (CCSYA) or it becomes a Non Critical Coarse Sediment Yield Area (Non-CCSYA). Only one of the



refinement options needs to produce a positive result for PCCSYA to become a Non-CCSYA. If no positive result occurs, then PCCSYA becomes CCSYA. As at least one refinement option shown in Table 2 produces a positive result for POCs 5, 6, 7, 8 and 9, then only those areas of Exhibit 1 are considered Non-CCSYA and no protection of those Non-CCSYAs (avoidance or no net impact demonstration) is required. Further analysis is required only for CCSYAs draining to POCs 1, 2A, 2B, 3, 4 and 10.

Table 2. Refinement Options Results

Basin	Is PCCSYA a CCSYA or a Non-CCSYA?	Refinement Option used	Basin	Is PCCSYA a CCSYA or a Non-CCSYA?	Refinement Option used
1	CCSYA	None. No net Impact Analysis needed.	6	Non-CCSYA	No encroachment
2A	CCSYA	None. No net Impact Analysis needed.	7	Non-CCSYA	No encroachment
2B	CCSYA	None. No net Impact Analysis needed.	8	Non-CCSYA	No encroachment
3	CCSYA	None. No net Impact Analysis needed.	9	Non-CCSYA	No encroachment
4	CCSYA	None. No net Impact Analysis needed.	10	CCSYA	None. No net Impact Analysis needed.
5	Non-CCSYA	No encroachment			

3. AVOIDANCE AND BYPASS

The project cannot avoid the totality of the CCSYAs included within the boundary of POCs 1, 2A, 2B, 3, 4 and 10 as many of those areas are located in places planned for development or for fill slopes. Therefore, Avoidance and By-Pass will be used to the maximum extent practicable to protect as many as possible CCSYAs draining to those POCs: as a matter of fact, all undisturbed natural areas (including CCSYAs embedded into them) will by-pass downstream basins, per section H.3.11 of the BMP Manual. As by-pass by itself is insufficient, please refer to the No Net Impact Section where it is demonstrated that enough protection/flow control is achieved to conclude that No Net Impact occurs at POCs 1, 2A, 2B, 3, 4 and 10. Finally, it must be noticed that avoidance and by-pass is also included in POCs where encroachment to PCCSYAs < 1%: 5, 6, 7, 8 and 9. Basically the remaining PCCSYAs are downstream and protected or in few cases, a portion of the PCCSYAs is upstream and by-passed to the POC. Also the PCCSYAs accounted for the slopes is also protected and discharged into the receiving drainage system and creek.

4. DEMONSTRATE NO NET IMPACT

The purpose of Chapter 4 of this study is to demonstrate that the drainage area of the Fanita Ranch Project draining to POC's 1, 2A, 2B, 3, 4 and 10 will generate No Net Impact in the Critical Sediment Yield to the aforementioned POCs.

No net impact will be achieved by equilibrating two different components: (a) the discharges of the sediment producing areas will be diverted as recommended in this analysis to adjust the Sediment Production S_p as close as possible to the original conditions and (b) the discharges of the developed areas will be adjusted by designing BMPs such that the work exercised by the discharged flows (the Erosion Potential E_p) is as close as possible to the pre-development work. By working simultaneously on those two factors (S_p and E_p), the project will achieve compliance as any reduction in the dimensionless Sediment Production Coefficient S_p will be compensated by similar reduction in the Erosion Potential Coefficient E_p so that no overall net impact downstream is achieved ($S_p/E_p < 1.10$).

4.1 Verification of Geomorphic Landscape Units (GLUs)

As an initial step, GLU areas will be mapped to determine the original critical coarse sediment yield of the CCSYAs draining to the POCs. Exhibit 1 shows the GLU results. From this analysis it was found that there are 2 geologic types occurring in the analyzed Areas per the simplified classification of Section H.6.1 of Appendix H (Coarse Bedrock CB and Coarse Sedimentary Impermeable CSI); (b) the land use of the analyzed area (associated mainly with existing vegetation) can be of 3 types: agricultural + grasses, Scrubs and Shrubs, and Forest; and (c) the influence of the slope is different depending on the geology and land use. Therefore, a slope analysis was made by Hunsaker & Associates to determine the area in each type of combination (see Exhibit 3a and 3b).

Cut and fill sloped areas are also analyzed (see corresponding graphic in Exhibit 2), as those are the only developed areas allowed to be included in sediment production calculations of post-development conditions as long as they do not drain to any BMPs and do not include impervious areas. There will be 4 types of slope areas considered: cut and fill slopes in CB geology, and cut and fill slopes in CSI geology. Land-use of the cut and fill slopes is assumed to behave similarly to grasses as a landscape land use is not included in section H.6.1 of Appendix H. It should be pointed out that the land use of the slopes cannot be considered developed, as per the Regional WMAA Attachment provided by the County of San Diego (and included in Appendix A) developed land use is assumed a sediment production of 0 (which defeats the purpose of including slopes in the analysis of sediment-producing areas in post-development condition). Consequently a land use of grass was considered as representative of the potential sediment production of the landscape that will be occurring in many of the cut and fill slopes.



In regards to the areas producing coarse sediment (GLU areas) the reader is referred to Appendix A, where there are tables indicating the GLU sub-areas belonging to each POC.

4.2 S_p Calculation

For the determination of S_p (Sediment Supply Potential) the sediment yield in pre and post-development conditions is needed. The following procedure was followed (please see S_p detailed calculations in Appendix A):

- In both pre and post-development conditions, the areas at each slope range (determined with the slope analysis) were obtained. This area was multiplied by the sediment yield depending on the slope, according to the information provided by the County included in Appendix 3 (Table A.4.2 from the Regional WMAA Analysis, reference [4], where values of K, LS, C, and R were obtained to determine the sediment production per unit area, $A=K \cdot LS \cdot C \cdot R$).
- In post-development conditions, additional coarse sediment producing areas were considered from the slopes of the development. Sediment yield factors were corrected from Table A.4.2 to account for a change in P factor (P is a support practice factor, assumed 0.5 for fill slopes and 0.25 for cut slopes, per Appendix H; it can also be seen as a safety factor).
- It should be noticed that cut slopes (1.5:1) and fill slopes (2:1) are larger than the maximum value obtained from Table A.4.2. Therefore, the following assumption were made: (a) as fill slope (2:1 = 50%) is similar than $x > 40\%$, K, LS, C and R values were obtained directly from reference [4]; and (b) as cut slopes are larger (67%) and sediment production depends on the slope, the values of K, LS, C and R were extrapolated from the corresponding values in the same geology and grass land use (basically fill was assigned slope type 4, while cut was assigned slope type 4.5). This approach was made to consider increase in sediment production when the slope is much larger than 40%.
- Only sediment yield from critical areas was considered (per Table H.6.2-3 of Appendix H). Therefore, the total area considered is smaller than the total area contributing to the POC's.
- The sediment yield from natural areas has been reduced from pre to post developed conditions (summarized in Table 3 below).
- The sediment yield of the post-development slopes is also summarized in Table 3 below.

Table 3 – Summary of RUSLE Calculations

POC	Pre _{RUSLE} (ton/yr)	Post _{RUSLE} (ton/yr) (natural terrain)	Post _{RUSLE} (ton/yr) (slopes)	Post _{RUSLE} (ton/yr) (TOTAL)
1	32.24	22.32	28.53	50.84
2A	178.31	126.32	8.17	134.49
2B	192.65	137.75	14.23	151.98
3	151.07	55.75	26.44	82.19
4	38.31	35.75	7.18	42.93
10	68.77	48.94	26.79	75.73



- Sediment yield also must include channel analysis. Per the NHDPlus Channel Map included in Exhibits 4a & 4b, it has been estimated that some NHDPlus channels exist in pre-development conditions, and those will reduce in post-development conditions in some POCs. Please refer to Table 4 for SY_{NHD} values (notice that in some POCs, channel analysis is not included as there are no NHDPlus channels on them).
- Following the recommendations of Appendix H, a weighed factor of 0.3 is applied to waters that are part of the NHDPlus data set and 0.7 for the RUSLE data. Consequently, the following equation is used: $S_p = 0.7 \cdot SY_{RUSLE} + 0.3 \cdot SY_{NHD}$. If no NHDPlus channels exist, then the equation reduces to $S_p = SY_{RUSLE}$.
- Finally, the overall S_p is shown in Table 4 (See also Appendix A).

Table 4 – Summary of S_p Calculations

POC	SY _{RUSLE}	SY _{NHD}	S _p
1	1.577	N/A	1.577
2A	0.754	0.036	0.539
2B	0.789	0.334	0.653
3	0.544	0.861	0.639
4	1.121	N/A	1.121
10	1.101	0.833	1.021

4.3 E_p and E_p/S_p Calculation

To calculate E_p , REC follows the procedure explained in Appendix H, Section H.8.1.1, Simplified E_p Method. The following is the procedure used here:

- Scaling factors are not necessary in this study, as the area of the watershed and the area of the portion of the project being analyzed are the same (in other words, 100% of the area draining to the POC's are included as part of the project area).
- Total Work is calculated using Equation H.8.1:

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

- Per Equation H.8.1, an m coefficient is needed. For POCs 1, 4 and 10, calculations will be shown for the 3 values of the m coefficient to demonstrate that compliance is, for those POCs, independent of the selection of m (m can be $\frac{1}{4}$, $\frac{4}{13}$ or $\frac{2}{5}$ depending on the relationship between width of flow and depth of flow). Refer to Appendix B for the results.
- For POCs 2A, 2B and 3, calculations were made with $m = \frac{4}{13}$ only. It should be pointed out that for POCs 2A and 3, the system does not satisfy $E_p/S_p \leq 1.10$ when $m = \frac{1}{4}$ but it does when $m = \frac{2}{5}$. However, per Appendix H, the value of $m = \frac{1}{4}$ is only applicable to narrow creeks (top width less than 7 times the depth of flow). According to HEC-RAS analysis carried out on those creeks, the width is more than 20 times the depth in all sections for most flows analyzed. Therefore, the author of this study is of the opinion that $m = \frac{1}{4}$ does not apply in those cases. It should be noted that for POC-2B, compliance is still valid with $m = \frac{1}{4}$, but it was not included in the calculations of Appendix B to be consistent with the fact that the main creek for POC-2B (downstream of POC-2A) becomes wider as the flows moves downstream, so it is not appropriate to analyze POC-2B with $m = \frac{1}{4}$ for narrow creeks when the entire HEC-RAS analysis shows a medium to wide creek behavior. In addition, according to a width analysis included in Appendix C for POCs 2A and 3, few selected sections of the creek downstream of those POCs are of intermediate width/depth scope, so $m = \frac{4}{13}$ is considered the most adequate value for the No Net Impact Analysis (the creeks cannot be considered as narrow triangular creeks to assign $m = \frac{1}{4}$ because the sections analyzed have a width in excess of 7 times the depth).
- The results of a continuous simulation model prepared for the POC's using SWMM (see reference [3], prepared by Hunsaker & Associates and updated by REC Consultants) are used here in the calculations displayed in Appendix 5: the 2-year peak flow Q_2 (obtained with SWMM) is used to define the lower threshold as 10% of Q_2 .
- All flows larger than 10% of Q_2 in the continuous simulation (with one-hour duration) are gathered from the continuous simulation results both in pre-development and post-development conditions. This option was preferred over working with bins because the amount of peaks was not very large and the precision of doing the calculations with the exact values instead of using the average values for each bin is worth the extra effort.



- According to the results of Appendix B, the summation of the dimensionless work factors (that defines the total dimensionless work variables ΣW_{PRE} and ΣW_{POST} in pre-development and post-development conditions) is used to obtain $E_p = \Sigma W_{POST} / \Sigma W_{PRE}$ is summarized in Table 68 below.

Table 5 – Summary of m, E_p, S_p and E_p/S_p for Analyzed POCs.

POC	m	E _p	S _p	E _p /S _p
1	¼	0.274	1.577	0.2
1	⁴ / ₁₃	0.257	1.577	0.2
1	² / ₅	0.228	1.577	0.1
2A	⁴ / ₁₃	0.593	0.539	1.1
2B	⁴ / ₁₃	0.613	0.653	0.9
3	⁴ / ₁₃	0.700	0.640	1.1
4	¼	0.841	1.121	0.8
4	⁴ / ₁₃	0.832	1.121	0.7
4	² / ₅	0.817	1.121	0.7
10	¼	0.393	1.021	0.4
10	⁴ / ₁₃	0.376	1.021	0.4
10	² / ₅	0.349	1.021	0.3

- As demonstrated in Table 6, all POC's E_p/S_p ratios meet the E_p/S_p ≤ 1.10 requirement, thus no net impact is achieved according to Appendix H. Notice that the results of reference [2] demonstrate flow control beyond the minimum necessary by hydromodification considerations alone (demonstrated by the separation of the pre and post development Flow Duration Curves FDCs) so that E_p could be reduced to levels compatible with No Net Impact conditions.

4.4 Conclusion of Section 4.

This study has demonstrated that the proposed HMP BMPs provided for the portions of Fanita Ranch draining to POC's 1, 2A, 2B, 3, 4 and 10 in addition to the protection of the remaining natural area, and the diversion of the runoff from the slope areas shown in Appendix 3 are sufficient to meet the No Net Impact Criteria defined as E_p/S_p ≤ 1.10.

5. CONCLUSIONS OF THE STUDY

The Fanita Ranch project avoids any impact into CCSYAs with the following measures:

- (a) By protecting and not encroaching into PCCSYAs draining into 5 POCs (POCs 5, 6, 7, 8, 9)
- (b) By demonstrating No Net Impact via Continuous Simulation and E_p/S_p analysis in the remaining POCs (POCs 1, 2A, 2B, 3, 4 and 10).

6. LIST OF APPENDICES & EXHIBITS

Appendix A: S_p Calculations.

Appendix B: E_p Calculations. Summary of Results.

Appendix C: Width Analysis, Proper Selection of m and Detailed Explanation of the Meaning of m

Exhibits:

- Exhibit 1: CCSYA- GLU Exhibit (Hunsaker, November 2017)
- Exhibit 2: Fill and Cut Slope Map (Hunsaker, November 2017)
- Exhibits 3a & 3b: Pre and Post-Development GLU Areas (Hunsaker, November 2017)
- Exhibits 4a & 4b: NHD-Plus Pre and Post-Development Channel Map (Hunsaker, November 2017)

7. REFERENCES

- [1] County of San Diego BMP Design Manual. Appendices. February 2016 – Appendix H.
- [2] Regional WMAA Excerpt of CCSYA Quantitative Analysis. Provided by San Diego County.
- [3] Hunsaker: “Technical Memorandum: SWMM Modeling for Hydromodification Compliance of Fanita Ranch”, November, 2017.
- [4] Part 654 Stream Restoration Design, National Engineering Handbook (USDA 2007). Chapter 8, Threshold Channel Design.

Appendix A:

- S_p Calculations
- Relevant Information from Regional WMAA CCSYA Quantitative Analysis

POC-1B SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CB-Forest-3	0	10.16	0.00
CB-Forest-2	0	8.42	0.00
CB-Shrub-4	3.16	10.22	32.24
CB-Agri/Grass-4	0	13.55	0.00
CB-Agri/Grass-3	0	10.60	0.00

TOTAL PRE: 32.24

TOTAL POST: 50.84 [(1) + (2)]

SY_{RUSLE}: 1.577

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB-Forest-3	0	10.16	0.00
CB-Forest-2	0	8.42	0.00
CB-Shrub-4	2.18	10.22	22.32
CB-Agri/Grass-4	0	13.55	0.00
CB-Agri/Grass-3	0	10.60	0.00

(1) TOTAL: 22.32

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE} : N/A ft (approx).

L_{POST} : N/A ft (approx).

SY_{NHD}: N/A

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB- Cut slope (P=0.5)	1.02	7.717	7.87
CB- Fill slope (P=0.25)	6.10	3.386	20.66

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

(2) TOTAL: 28.53

SEDIMENT SUPPLY POTENTIAL S_p

$S_p = \text{SY}_{\text{RUSLE}} = 1.577$

POC-2A SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0.32	10.60	3.39
CB-Agri/Grass-4	0.01	13.55	0.14
CB-Forest-3	0.93	10.16	9.45
CB-Forest-4	2.41	10.75	25.91
CB-Scrub-4	12.78	10.22	130.61
CSI-Agri/Grass-2	0.09	8.79	0.79
CSI-Agri/Grass-3	0.73	9.98	7.29
CSI-Agri/Grass-4	0.07	10.54	0.74

TOTAL PRE: 178.31

TOTAL POST: 134.49 [(1) + (2)]

SY_{RUSLE}: 0.754

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE} : 6620 ft (approx).

L_{POST} : 240 ft (approx).

SY_{NHD}: 0.036

SEDIMENT SUPPLY POTENTIAL S_p

$$S_p = 0.7 \cdot \text{SY}_{\text{RUSLE}} + 0.3 \cdot \text{SY}_{\text{NHD}} = 0.539$$

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0	10.60	0.00
CB-Agri/Grass-4	0	13.55	0.00
CB-Forest-3	0.36	10.16	3.66
CB-Forest-4	1.40	10.75	15.05
CB-Scrub-4	10.50	10.22	107.31
CSI-Agri/Grass-2	0	8.79	0.00
CSI-Agri/Grass-3	0.03	9.98	0.30
CSI-Agri/Grass-4	0	10.54	0.00

(1) **TOTAL: 126.32**

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CSI- Cut slope (P=0.5)	1.03	5.466	5.63
CB- Cut slope (P=0.5)	0.00	7.717	0.00
CB- Fill slope (P=0.25)	0.75	3.386	2.54

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

(2) **TOTAL: 8.17**

POC-2B SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0.32	10.60	3.39
CB-Agri/Grass-4	0.01	13.55	0.14
CB-Forest-3	0.93	10.16	9.45
CB-Forest-4	2.41	10.75	25.91
CB-Scrub-4	13.85	10.22	141.55
CSI-Agri/Grass-2	0.09	8.79	0.79
CSI-Agri/Grass-3	1.05	9.98	10.48
CSI-Agri/Grass-4	0.09	10.54	0.95

TOTAL PRE: 192.65

TOTAL POST: 151.98 [(1) + (2)]

SY_{RUSLE} : 0.789

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0	10.60	0.00
CB-Agri/Grass-4	0	13.55	0.00
CB-Forest-3	0.36	10.16	3.66
CB-Forest-4	1.40	10.75	15.05
CB-Scrub-4	11.57	10.22	118.25
CSI-Agri/Grass-2	0.00	8.79	0.00
CSI-Agri/Grass-3	0.08	9.98	0.80
CSI-Agri/Grass-4	0	10.54	0.00

(1) TOTAL: 137.75

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE} : 10350 ft (approx).

L_{POST} : 3460 ft (approx).

SY_{NHD} : 0.334

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CSI- Cut slope (P=0.5)	1.03	5.466	5.63
CB- Cut slope (P=0.5)	0.00	7.717	0.00
CB- Fill slope (P=0.25)	2.54	3.386	8.60

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

SEDIMENT SUPPLY POTENTIAL S_p

$S_p = 0.7 \cdot SY_{\text{RUSLE}} + 0.3 \cdot SY_{\text{NHD}} = 0.653$

(2) TOTAL: 14.23

POC-3 SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CSI-Agri/Grass-2	0.52	8.79	4.57
CSI-Agri/Grass-3	11.33	9.98	113.07
CSI-Agri/Grass-4	1.19	10.54	12.54
CB-Agri/Grass-3	1.97	10.60	20.88

TOTAL PRE: 151.07
TOTAL POST: 82.19 [(1) + (2)]
SY_{RUSLE}: 0.544

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE} : 5234 ft (approx).
 L_{POST} : 4505 ft (approx).

SY_{NHD}: 0.861

SEDIMENT SUPPLY POTENTIAL S_p

$$S_p = 0.7 \cdot \text{SY}_{\text{RUSLE}} + 0.3 \cdot \text{SY}_{\text{NHD}} = \mathbf{0.639}$$

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CSI-Agri/Grass-2	0.23	8.79	2.02
CSI-Agri/Grass-3	3.27	9.98	32.63
CSI-Agri/Grass-4	0.02	10.54	0.21
CB-Agri/Grass-3	1.97	10.60	20.88

(1) TOTAL: 55.75

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB- Cut slope (P=0.5)	0.57	7.717	4.40
CB- Fill slope (P=0.25)	4.45	3.386	15.07
CSI- Cut slope (P=0.5)	0.63	5.466	3.44
CSI- Fill slope (P=0.25)	1.34	2.635	3.53

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

(2) TOTAL: 26.44

POC-4A SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CB-Forest-3	0.17	10.16	1.73
CB-Forest-2	0.46	8.42	3.87
CB-Shrub-4	2.99	10.22	30.56
CB-Agri/Grass-4	0.01	13.55	0.14
CB-Agri/Grass-3	0.19	10.60	2.01

TOTAL PRE: 38.31
TOTAL POST: 42.93 [(1) + (2)]
SY_{RUSLE} : 1.121

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB-Forest-3	0.17	10.16	1.73
CB-Forest-2	0.46	8.42	3.87
CB-Shrub-4	2.74	10.22	28.00
CB-Agri/Grass-4	0.01	13.55	0.14
CB-Agri/Grass-3	0.19	10.60	2.01

(1) TOTAL: 35.75

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE}: N/A ft (approx).

L_{POST}: N/A ft (approx).

SY_{NHD} : N/A

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB- Cut slope (P=0.5)	0	7.717	0.00
CB- Fill slope (P=0.25)	2.12	3.386	7.18

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

Example: CB-Fill: $A = (13.5 + 13.6)/2 \cdot 0.25 = 3.388$

(2) TOTAL: 7.18

SEDIMENT SUPPLY POTENTIAL S_p

$S_p = SY_{\text{RUSLE}} = 1.121$

POC-10 SEDIMENT SUPPLY POTENTIAL S_p

Pre-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Pre _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0	10.60	0.00
CB-Agri/Grass-4	0	13.55	0.00
CB-Forest-3	0	10.16	0.00
CB-Forest-4	0	13.93	0.00
CB-Scrub-4	6.73	10.22	68.77
CSI-Agri/Grass-2	0	8.79	0.00
CSI-Agri/Grass-3	0	9.98	0.00
CSI-Agri/Grass-4	0	10.54	0.00

TOTAL PRE: 68.77

TOTAL POST: 75.73 [(1) + (2)]

SY_{RUSLE}: 1.101

SY_{NHD}: Change in Bed Sediment Yield per NHD Channel Change

L_{PRE} : 2579 ft (approx).

L_{POST} : 2148 ft (approx).

SY_{NHD}: 0.833

SEDIMENT SUPPLY POTENTIAL S_p

$S_p = 0.7 \cdot \text{SY}_{\text{RUSLE}} + 0.3 \cdot \text{SY}_{\text{NHD}} = 1.021$

Post-Development RUSLE Sediment Production

GLU	Area (ac)	$A_{\text{soil-loss}}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB-Agri/Grass-3	0	10.60	0.00
CB-Agri/Grass-4	0	13.55	0.00
CB-Forest-3	0	10.16	0.00
CB-Forest-4	0.00	13.93	0.00
CB-Scrub-4	4.79	10.22	48.94
CSI-Agri/Grass-2	0	8.79	0.00
CSI-Agri/Grass-3	0	9.98	0.00
CSI-Agri/Grass-4	0	10.54	0.00

(1) TOTAL: 48.94

Post-Development RUSLE Cut and Fill Slopes

GLU	Area (ac)	$A_{\text{soil-loss}}^{(1)}$ (ton/ac/yr)	Post _{RUSLE} (ton/yr)
CB- Cut slope (P=0.5)	0.00	7.717	0.00
CB- Fill slope (P=0.25)	7.91	3.386	26.79

(1): A is assumed equal to average value of Agri/grass & Forest with large slope as it consists of landscape. Also, A includes Practice factor (0.5 for Cut, 0.25 for Fill).

(2) TOTAL: 26.79

A.4.2 Quantitative Analysis

Soil loss estimates for each Geomorphic Landscape Unit were estimated using the Revised Universal Soil Loss Equation (RUSLE; Renard et al. 1997) listed below:

$$A = R \times K \times LS \times C \times P$$

Where

A = estimated average soil loss in tons/acre/year

R = rainfall-runoff erosivity factor

K = soil erodibility factor

LS = slope length and steepness factor

C = cover-management factor

P = support practice factor; assumed 1 for this analysis

Regional datasets used to estimate the inputs required to estimate the soil loss from each GLU are listed in table below:

Dataset	Source	Download year	Description
RUSLE – R Factor	SWRCB	2014	Regional R factor map was downloaded from ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_R_Factor/
RUSLE – K Factor	SWRCB	2014	Regional K factor map was downloaded from ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/
RUSLE – LS Factor	SWRCB	2014	Regional LS factor map was downloaded from ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/
RUSLE – C Factor	USEPA	2014	Regional C factor map was downloaded from http://www.epa.gov/esd/land-sci/emap_west_browser/pages/wemap_mm_sl_rusle_c_qt.htm#mapnav

GIS analysis was used to calculate the area weighted estimate of R, K, LS and C factors using the regional datasets listed in the table above. For the developed land cover the C factor was then adjusted to 0 from the regional estimate to account for management actions implemented on developed sites (e.g. impervious surfaces). Soil loss estimates ranged from 0 to 15.2 tons/acre/year.

For evaluating the degree of relative risk to a stream solely arising from changes in sediment and/or water delivery SCCWRP Technical Report 605, 2010 states:

“The challenge in implementing this step is that presently we have insufficient basis to defensibly identify either low-risk or high-risk conditions using these metrics. For example, channels that are close to a threshold for geomorphic change may display significant morphological changes under nothing more than natural year-to-year variability in flow or sediment load.

- *Acknowledging this caveat, we nonetheless anticipate that changes of less than 10% in either driver are unlikely to instigate, on their own, significant channel changes. This value is a conservative estimate of the year-to-year variability in either discharge or sediment flux that can be accommodated by a channel system in a state of dynamic equilibrium. It does not “guarantee,” however, that channel change may not occur—either in response to yet modest alterations in water or sediment delivery, or because of other urbanization impacts (e.g., point discharge of runoff or the trapping of the upstream sediment flux; see Booth 1990) that are not represented with this analysis.*
- *In contrast, recognizing a condition of undisputed “high risk” must await broader collection of regionally relevant data. We note that >60% reductions in predicted sediment production have resulted in both minimal (McGonigle) and dramatic (Agua Hedionda) channel changes, indicating that “more data” may never provide absolute guidance. At present, we suggest using predicted watershed changes of 50% or more in either runoff (as indexed by change in impervious area) or sediment production as provisional criteria for requiring a more detailed evaluation of both the drivers and the resisting factors for channel change, regardless of other screening-level assessments. Clearly, however, only more experience with the application of such “thresholds,” and the actual channel conditions that accompany them, will provide a defensible basis for setting numeric standards.”*

The following criterion was developed using the suggestions listed above and then used to assign relative sediment production rating to each GLU:

- Low: Soil Loss < 5.6 tons/acre/year [GLUs that have a soil loss of 0 to 5.6 tons/acre/year produces around 10% of the total coarse sediment soil loss from the study area]
- Medium: 5.6 tons/acre/year < Soil Loss < 8.4 tons/acre/year
- High: > 8.4 tons/acre/year [GLUs that have a soil loss greater than 8.4 tons/acre/year produces around 42% of the total coarse sediment soil loss from the study area]

Results from the quantitative analysis are summarized in Table A.4.2.

Table A.4.2 Relative Sediment Production for different Geomorphic Landscape Units

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
CB-Agricultural/Grass-1	52883	0.20	4.67	0.14	50	6.5	Medium	No
CB-Agricultural/Grass-2	40633	0.21	5.19	0.14	56	8.3	Medium	No
CB-Agricultural/Grass-3	32617	0.22	6.04	0.14	57	10.6	High	Yes
CB-Agricultural/Grass-4	11066	0.23	7.38	0.14	57	13.5	High	Yes
CB-Developed-1	39746	0.22	3.77	0	49	0	Low	No
CB-Developed-2	32614	0.22	4.28	0	50	0	Low	No
CB-Developed-3	15841	0.22	4.86	0	49	0	Low	No
CB-Developed-4	1805	0.22	5.63	0	48	0	Low	No
CB-Forest-1	32231	0.20	6.38	0.14	39	6.8	Medium	No
CB-Forest-2	38507	0.20	7.20	0.13	45	8.8	High	Yes
CB-Forest-3	55303	0.20	8.14	0.13	48	10.6	High	Yes
CB-Forest-4	38217	0.20	9.95	0.14	50	13.6	High	Yes
CB-Other-1	1036	0.20	5.52	0.13	45	6.5	Medium	No
CB-Other-2	317	0.20	6.46	0.13	45	7.9	Medium	No
CB-Other-3	296	0.20	6.96	0.14	43	8.3	Medium	No
CB-Other-4	111	0.21	6.84	0.14	41	8.2	Medium	No
CB-Scrub/Shrub-1	88135	0.20	5.66	0.14	33	5.3	Low	No
CB-Scrub/Shrub-2	143694	0.20	6.51	0.14	37	6.8	Medium	No
CB-Scrub/Shrub-3	246703	0.21	7.33	0.14	41	8.4	Medium	No
CB-Scrub/Shrub-4	191150	0.21	8.28	0.14	42	9.8	High	Yes
CB-Unknown-1	1727	0.21	5.32	0.13	44	6.3	Medium	No
CB-Unknown-2	1935	0.21	5.95	0.13	44	7.1	Medium	No

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
CB-Unknown-3	1539	0.22	6.21	0.13	44	7.7	Medium	No
CB-Unknown-4	278	0.22	6.61	0.13	44	8.4	High	Yes
CSI-Agricultural/Grass-1	14609	0.34	2.72	0.14	39	4.8	Low	No
CSI-Agricultural/Grass-2	9059	0.37	3.61	0.14	47	8.7	High	Yes
CSI-Agricultural/Grass-3	10096	0.38	3.99	0.14	47	9.8	High	Yes
CSI-Agricultural/Grass-4	2498	0.37	4.33	0.14	47	10.5	High	Yes
CSI-Developed-1	82371	0.28	2.51	0	39	0	Low	No
CSI-Developed-2	22570	0.30	2.66	0	41	0	Low	No
CSI-Developed-3	13675	0.30	2.89	0	40	0	Low	No
CSI-Developed-4	3064	0.27	3.20	0	39	0	Low	No
CSI-Forest-1	449	0.27	4.26	0.13	43	6.6	Medium	No
CSI-Forest-2	611	0.25	5.11	0.13	44	7.5	Medium	No
CSI-Forest-3	716	0.29	4.43	0.13	44	7.4	Medium	No
CSI-Forest-4	348	0.30	4.49	0.13	43	7.6	Medium	No
CSI-Other-1	319	0.31	2.50	0.13	32	3.2	Low	No
CSI-Other-2	83	0.27	3.01	0.13	39	4.3	Low	No
CSI-Other-3	45	0.28	3.03	0.13	39	4.5	Low	No
CSI-Other-4	13	0.24	4.01	0.14	39	5.2	Low	No
CSI-Scrub/Shrub-1	9051	0.26	3.53	0.13	39	4.7	Low	No
CSI-Scrub/Shrub-2	10802	0.27	4.36	0.13	41	6.3	Medium	No
CSI-Scrub/Shrub-3	28220	0.26	4.82	0.13	41	6.7	Medium	No
CSI-Scrub/Shrub-4	20510	0.26	5.52	0.13	41	7.8	Medium	No
CSI-Unknown-1	5292	0.28	2.38	0.13	36	3.1	Low	No

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
CSI-Unknown-2	2074	0.29	2.98	0.13	40	4.5	Low	No
CSI-Unknown-3	2171	0.27	3.04	0.13	39	4.2	Low	No
CSI-Unknown-4	676	0.26	3.04	0.13	38	3.8	Low	No
CSP-Agricultural/Grass-1	59327	0.22	3.01	0.14	44	4.0	Low	No
CSP-Agricultural/Grass-2	8426	0.23	3.81	0.14	42	5.2	Low	No
CSP-Agricultural/Grass-3	2377	0.24	4.05	0.14	41	5.6	Low	No
CSP-Agricultural/Grass-4	291	0.22	6.28	0.14	52	10.1	High	Yes
CSP-Developed-1	85283	0.27	2.10	0	42	0	Low	No
CSP-Developed-2	7513	0.26	2.77	0	42	0	Low	No
CSP-Developed-3	2317	0.27	2.70	0	40	0	Low	No
CSP-Developed-4	272	0.27	2.76	0	38	0	Low	No
CSP-Forest-1	14738	0.22	4.52	0.14	44	6.0	Medium	No
CSP-Forest-2	3737	0.22	5.99	0.14	45	8.2	Medium	No
CSP-Forest-3	1858	0.21	6.42	0.14	45	8.5	High	Yes
CSP-Forest-4	484	0.21	7.62	0.14	48	10.2	High	Yes
CSP-Other-1	7404	0.23	2.61	0.14	39	3.2	Low	No
CSP-Other-2	343	0.24	3.68	0.13	40	4.8	Low	No
CSP-Other-3	126	0.24	3.76	0.13	40	4.9	Low	No
CSP-Other-4	17	0.24	4.19	0.13	39	5.3	Low	No
CSP-Scrub/Shrub-1	22583	0.23	3.75	0.14	41	4.8	Low	No
CSP-Scrub/Shrub-2	8938	0.24	5.63	0.14	40	7.1	Medium	No
CSP-Scrub/Shrub-3	7186	0.23	6.15	0.13	39	7.5	Medium	No
CSP-Scrub/Shrub-4	2609	0.22	7.16	0.14	43	9.3	High	Yes

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
CSP-Unknown-1	6186	0.25	2.63	0.13	40	3.4	Low	No
CSP-Unknown-2	744	0.27	3.49	0.13	39	4.8	Low	No
CSP-Unknown-3	350	0.28	3.32	0.13	38	4.5	Low	No
CSP-Unknown-4	78	0.28	3.26	0.13	40	4.5	Low	No
FB-Agricultural/Grass-1	6103	0.25	5.49	0.14	49	9.2	High	No
FB-Agricultural/Grass-2	7205	0.25	5.87	0.14	51	10.1	High	No
FB-Agricultural/Grass-3	6730	0.24	6.43	0.14	53	11.3	High	No
FB-Agricultural/Grass-4	2586	0.22	8.62	0.14	57	15.2	High	No
FB-Developed-1	10116	0.28	3.94	0	46	0	Low	No
FB-Developed-2	9075	0.28	4.41	0	45	0	Low	No
FB-Developed-3	5499	0.27	4.72	0	44	0	Low	No
FB-Developed-4	785	0.27	5.08	0	43	0	Low	No
FB-Forest-1	3780	0.21	7.24	0.13	39	8.0	Medium	No
FB-Forest-2	7059	0.21	7.53	0.13	43	8.8	High	No
FB-Forest-3	13753	0.22	8.02	0.13	43	9.7	High	No
FB-Forest-4	8899	0.26	9.63	0.13	35	11.5	High	No
FB-Other-1	172	0.26	5.72	0.13	44	8.6	High	No
FB-Other-2	75	0.26	5.97	0.13	38	7.7	Medium	No
FB-Other-3	76	0.28	6.27	0.13	34	7.6	Medium	No
FB-Other-4	36	0.31	6.70	0.13	33	8.6	High	No
FB-Scrub/Shrub-1	10297	0.24	6.94	0.14	36	8.3	Medium	No
FB-Scrub/Shrub-2	25150	0.25	7.24	0.14	38	9.0	High	No
FB-Scrub/Shrub-3	70895	0.25	7.89	0.13	38	10.0	High	No

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
FB-Scrub/Shrub-4	70679	0.26	9.05	0.14	39	12.1	High	No
FB-Unknown-1	654	0.30	5.33	0.13	37	7.6	Medium	No
FB-Unknown-2	829	0.29	5.26	0.13	40	7.9	Medium	No
FB-Unknown-3	1062	0.29	5.54	0.13	39	8.2	Medium	No
FB-Unknown-4	299	0.28	6.02	0.13	38	8.4	High	No
FSI-Agricultural/Grass-1	8462	0.32	3.91	0.13	24	3.9	Low	No
FSI-Agricultural/Grass-2	4979	0.33	4.29	0.13	31	5.7	Medium	No
FSI-Agricultural/Grass-3	4808	0.34	4.26	0.13	34	6.3	Medium	No
FSI-Agricultural/Grass-4	1055	0.35	4.11	0.13	36	6.7	Medium	No
FSI-Developed-1	9953	0.29	3.09	0	34	0	Low	No
FSI-Developed-2	4972	0.31	3.22	0	37	0	Low	No
FSI-Developed-3	3350	0.29	3.30	0	36	0	Low	No
FSI-Developed-4	763	0.28	3.31	0	37	0	Low	No
FSI-Forest-1	186	0.33	4.62	0.13	37	7.2	Medium	No
FSI-Forest-2	217	0.35	4.47	0.13	39	7.9	Medium	No
FSI-Forest-3	262	0.37	4.71	0.13	40	9.2	High	No
FSI-Forest-4	111	0.36	4.73	0.13	40	9.2	High	No
FSI-Other-1	266	0.31	3.11	0.13	24	2.9	Low	No
FSI-Other-2	81	0.30	3.29	0.13	25	3.1	Low	No
FSI-Other-3	56	0.31	3.04	0.13	27	3.2	Low	No
FSI-Other-4	15	0.29	3.57	0.13	33	4.4	Low	No
FSI-Scrub/Shrub-1	2241	0.27	4.46	0.13	29	4.5	Low	No
FSI-Scrub/Shrub-2	3911	0.28	4.96	0.13	31	5.7	Medium	No

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
FSI-Scrub/Shrub-3	7590	0.29	5.05	0.13	34	6.3	Medium	No
FSI-Scrub/Shrub-4	3502	0.30	5.14	0.13	37	7.5	Medium	No
FSI-Unknown-1	1117	0.29	2.83	0.13	27	3.0	Low	No
FSI-Unknown-2	780	0.30	3.44	0.13	32	4.3	Low	No
FSI-Unknown-3	855	0.29	3.41	0.13	31	4.0	Low	No
FSI-Unknown-4	285	0.28	3.21	0.13	32	3.7	Low	No
FSP-Agricultural/Grass-1	13	0.22	2.22	0.13	40	2.5	Low	No
FSP-Agricultural/Grass-2	3	0.22	2.59	0.13	40	3.0	Low	No
FSP-Agricultural/Grass-3	2	0.22	2.69	0.13	40	3.2	Low	No
FSP-Agricultural/Grass-4	0	0.20	2.94	0.12	40	2.9	Low	No
FSP-Developed-1	180	0.26	2.85	0	40	0	Low	No
FSP-Developed-2	13	0.25	2.69	0	40	0	Low	No
FSP-Developed-3	8	0.21	2.25	0	40	0	Low	No
FSP-Developed-4	0	0.21	2.29	0	40	0	Low	No
FSP-Forest-1	8	0.22	2.29	0.14	40	2.9	Low	No
FSP-Forest-2	5	0.20	2.22	0.14	40	2.5	Low	No
FSP-Forest-3	0	0.20	2.22	0.14	40	2.5	Low	No
FSP-Other-1	1307	0.20	2.38	0.14	40	2.7	Low	No
FSP-Other-2	34	0.21	2.36	0.14	40	2.7	Low	No
FSP-Other-3	8	0.22	2.56	0.13	40	3.0	Low	No
FSP-Other-4	0	0.43	4.35	0.12	40	9.3	High	No
FSP-Scrub/Shrub-1	147	0.23	2.68	0.14	40	3.3	Low	No
FSP-Scrub/Shrub-2	18	0.23	2.55	0.14	40	3.3	Low	No

Regional WMAA Attachments

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
FSP-Scrub/Shrub-3	4	0.20	2.23	0.14	40	2.6	Low	No
FSP-Scrub/Shrub-4	0	0.20	1.70	0.12	40	1.7	Low	No
FSP-Unknown-1	40	0.20	1.87	0.13	40	1.9	Low	No
FSP-Unknown-2	5	0.20	1.99	0.12	40	2.0	Low	No
FSP-Unknown-3	1	0.20	2.39	0.12	40	2.4	Low	No
O-Agricultural/Grass-1	2433	0.20	2.93	0.14	34	2.8	Low	No
O-Agricultural/Grass-2	112	0.21	3.44	0.14	32	3.2	Low	No
O-Agricultural/Grass-3	30	0.23	3.89	0.13	32	3.8	Low	No
O-Agricultural/Grass-4	1	0.26	6.47	0.13	37	7.9	Medium	No
O-Developed-1	8327	0.27	1.37	0	39	0	Low	No
O-Developed-2	474	0.25	2.12	0	40	0	Low	No
O-Developed-3	157	0.26	3.07	0	41	0	Low	No
O-Developed-4	26	0.24	3.89	0	41	0	Low	No
O-Forest-1	235	0.22	6.15	0.13	43	7.6	Medium	No
O-Forest-2	67	0.21	5.07	0.13	45	6.6	Medium	No
O-Forest-3	45	0.21	5.43	0.13	47	7.3	Medium	No
O-Forest-4	20	0.20	5.95	0.13	59	9.0	High	No
O-Other-1	9362	0.25	3.86	0.13	36	4.3	Low	No
O-Other-2	344	0.24	3.32	0.13	35	3.5	Low	No
O-Other-3	120	0.23	4.86	0.13	35	5.0	Low	No
O-Other-4	37	0.22	5.64	0.13	39	6.6	Medium	No
O-Scrub/Shrub-1	688	0.22	4.83	0.13	40	5.7	Medium	No
O-Scrub/Shrub-2	224	0.22	5.80	0.13	36	6.3	Medium	No

Geomorphic Landscape Unit (GLU)	Area (acres)	K	LS	C	R	A	Relative Sediment Production	Critical Coarse Sediment
O-Scrub/Shrub-3	209	0.22	6.47	0.13	41	7.5	Medium	No
O-Scrub/Shrub-4	96	0.22	6.62	0.13	44	8.2	Medium	No
O-Unknown-1	1236	0.28	1.60	0.12	26	1.5	Low	No
O-Unknown-2	62	0.27	1.48	0.13	36	1.8	Low	No
O-Unknown-3	15	0.29	3.52	0.13	38	4.9	Low	No
O-Unknown-4	7	0.34	3.87	0.12	40	6.6	Medium	No

GLU Nomenclature: Geology – Land Cover – Slope Category

Geology Categories:

CB Coarse Bedrock
 CSI Coarse Sedimentary Impermeable
 CSP Coarse Sedimentary Permeable
 FB Fine Bedrock
 FSI Fine Sedimentary Impermeable
 FSP Fine Sedimentary Permeable
 O Other

Slope Categories:

1 0%-10%
 2 10% - 20%
 3 20% - 40%
 4 > 40%

Appendix B:

- E_p Calculations. Summary of Results.

POC 1B - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		8.571	cfs	
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	198.404	42.372
2	2/20/1980	19:00:00	190.273	40.525
3	10/22/1976	17:00:00	157.629	33.057
4	9/10/1976	10:00:00	138.859	28.728
5	10/31/1987	19:00:00	127.957	26.203
6	2/7/1998	17:00:00	127.314	26.053
7	10/22/1976	16:00:00	122.524	24.941
8	1/9/2005	21:00:00	121.811	24.776
9	1/29/1980	7:00:00	115.633	23.339
10	2/2/1998	17:00:00	113.403	22.8202
11	2/6/1992	20:00:00	112.983	22.7225
12	10/18/2004	13:00:00	111.594	22.3991
13	10/20/2004	12:00:00	109.297	21.8641
14	2/13/1998	17:00:00	106.245	21.1529
15	2/19/1993	16:00:00	103.849	20.5943
16	1/31/1979	14:00:00	96.159	18.8004
17	3/1/1983	16:00:00	94.807	18.4848
18	1/9/2005	20:00:00	93.737	18.2351
19	8/17/1977	3:00:00	89.151	17.1646
20	3/2/1983	18:00:00	85.712	16.3619
21	2/21/2005	14:00:00	83.310	15.8013
22	2/15/1992	15:00:00	82.180	15.5377
23	3/6/1975	11:00:00	81.021	15.2673
24	4/18/1995	12:00:00	78.346	14.6433
25	3/3/1983	1:00:00	75.849	14.0612
26	2/20/1980	20:00:00	75.540	13.9892
27	10/27/2004	5:00:00	74.580	13.7656
28	2/18/1980	5:00:00	74.233	13.6847
29	3/4/1978	18:00:00	74.156	13.6668
30	2/16/1980	20:00:00	73.975	13.6246
31	1/31/1979	16:00:00	73.567	13.5296
32	1/31/1979	13:00:00	72.914	13.3775
33	1/18/1993	6:00:00	72.253	13.2236
34	12/4/1974	12:00:00	71.948	13.1526
35	2/12/2003	17:00:00	70.355	12.7820
36	1/31/1979	8:00:00	70.059	12.7131
37	2/25/2003	17:00:00	69.057	12.4801
38	1/13/1993	22:00:00	68.899	12.4434
39	1/9/1980	13:00:00	68.456	12.3404
40	10/10/1986	0:00:00	68.450	12.3390

Work Calculations, Post-Development Conditions				
Low flow Threshold:		8.571	cfs	
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	2/20/1980	19:00:00	90.420	17.461
2	1/4/1978	21:00:00	87.967	16.888
3	10/22/1976	17:00:00	72.431	13.265
4	9/10/1976	10:00:00	65.752	11.712
5	2/7/1998	17:00:00	59.408	10.243
6	10/31/1987	19:00:00	58.986	10.146
7	1/9/2005	21:00:00	57.800	9.872
8	1/29/1980	7:00:00	54.818	9.185
9	2/2/1998	17:00:00	53.569	8.898
10	10/18/2004	13:00:00	53.412	8.862
11	10/20/2004	12:00:00	53.321	8.842
12	10/22/1976	16:00:00	52.268	8.600
13	2/13/1998	17:00:00	50.388	8.170
14	2/6/1992	20:00:00	50.378	8.168
15	1/31/1979	14:00:00	47.879	7.598
16	2/19/1993	16:00:00	45.815	7.130
17	3/1/1983	16:00:00	44.389	6.807
18	8/17/1977	3:00:00	44.267	6.780
19	1/9/2005	20:00:00	44.029	6.726
20	3/2/1983	18:00:00	41.919	6.251
21	2/21/2005	14:00:00	40.334	5.897
22	2/20/1980	20:00:00	38.650	5.522
23	1/31/1979	16:00:00	37.902	5.356
24	3/3/1983	1:00:00	37.844	5.343
25	1/31/1979	13:00:00	36.842	5.122
26	2/15/1992	15:00:00	36.577	5.063
27	3/4/1978	18:00:00	36.053	4.948
28	2/18/1980	5:00:00	35.924	4.920
29	4/18/1995	12:00:00	35.745	4.881
30	2/16/1980	20:00:00	35.475	4.821
31	3/3/1983	6:00:00	34.506	4.610
32	1/18/1993	6:00:00	34.431	4.593
33	10/20/2004	16:00:00	33.954	4.489
34	10/28/1974	12:00:00	33.740	4.443
35	1/31/1979	8:00:00	33.702	4.435
36	10/20/2004	15:00:00	33.656	4.425
37	2/25/2003	17:00:00	33.504	4.392
38	2/12/2003	17:00:00	33.238	4.334
39	1/9/1980	13:00:00	33.129	4.310
40	10/20/2004	13:00:00	33.082	4.300

41	3/3/1983	6:00:00	66.967	11.9944
42	10/28/1974	12:00:00	65.883	11.7428
43	10/20/2004	16:00:00	63.940	11.2920
44	10/20/2004	15:00:00	63.853	11.2719
45	10/20/2004	13:00:00	63.751	11.2482
46	10/28/1974	11:00:00	63.482	11.1859
47	2/16/1998	17:00:00	61.628	10.7565
48	10/19/2004	8:00:00	60.292	10.4475
49	2/15/1986	4:00:00	59.751	10.3224
50	3/21/1983	5:00:00	57.998	9.9177
51	1/11/2005	4:00:00	57.730	9.8559
52	2/23/2005	4:00:00	55.080	9.2456
53	1/25/1995	19:00:00	55.016	9.2308
54	3/16/1986	21:00:00	54.957	9.2173
55	3/5/1995	20:00:00	54.340	9.0755
56	10/27/2004	14:00:00	53.876	8.9689
57	3/5/1995	17:00:00	53.850	8.9629
58	1/27/2008	2:00:00	53.130	8.7977
59	12/29/2004	4:00:00	52.500	8.6532
60	2/10/1978	6:00:00	52.487	8.6503
61	2/10/1978	5:00:00	52.317	8.6113
62	1/15/1978	4:00:00	52.194	8.5831
63	12/28/1977	8:00:00	51.816	8.4966
64	12/25/2003	19:00:00	51.690	8.4677
65	2/21/2005	11:00:00	51.645	8.4574
66	1/11/1980	13:00:00	51.581	8.4428
67	2/15/1986	6:00:00	51.457	8.4144
68	10/27/2004	8:00:00	51.157	8.3457
69	2/9/1976	1:00:00	51.042	8.3194
70	2/8/1976	22:00:00	51.037	8.3183
71	2/8/1976	21:00:00	50.821	8.2689
72	1/14/1978	20:00:00	50.297	8.1492
73	2/18/1980	9:00:00	50.146	8.1147
74	1/29/1980	20:00:00	49.861	8.0496
75	2/13/1978	11:00:00	49.558	7.9805
76	2/19/1980	22:00:00	49.517	7.9711
77	1/31/1979	12:00:00	49.465	7.9593
78	12/18/1988	14:00:00	49.321	7.9264
79	3/1/1983	17:00:00	49.052	7.8651
80	3/2/1983	19:00:00	49.043	7.8630
81	1/10/1978	8:00:00	48.872	7.8241
82	1/8/1998	17:00:00	48.734	7.7926
83	1/11/2005	5:00:00	48.697	7.7842
84	2/19/1980	16:00:00	48.547	7.7500
85	3/1/1981	14:00:00	48.486	7.7361
86	2/15/1986	5:00:00	48.435	7.7245
87	1/11/1980	7:00:00	48.406	7.7179
88	3/2/1983	17:00:00	48.383	7.7127
89	2/16/1980	19:00:00	48.067	7.6408
90	2/27/1978	22:00:00	48.038	7.6342
91	10/27/2004	7:00:00	47.853	7.5921

41	3/6/1975	11:00:00	32.356	4.143
42	10/28/1974	11:00:00	32.208	4.111
43	12/4/1974	12:00:00	32.172	4.104
44	1/13/1993	22:00:00	31.275	3.911
45	10/19/2004	8:00:00	30.169	3.675
46	3/5/1995	20:00:00	29.159	3.461
47	1/11/2005	4:00:00	29.073	3.443
48	2/16/1998	17:00:00	28.811	3.388
49	10/10/1986	0:00:00	28.415	3.305
50	3/5/1995	17:00:00	28.087	3.236
51	2/23/2005	4:00:00	27.660	3.147
52	1/11/1980	13:00:00	26.812	2.971
53	1/15/1978	4:00:00	26.741	2.956
54	2/9/1976	1:00:00	26.656	2.938
55	1/29/1980	20:00:00	26.427	2.891
56	2/8/1976	22:00:00	26.013	2.806
57	10/27/2004	14:00:00	25.917	2.786
58	1/25/1995	19:00:00	25.906	2.784
59	3/16/1986	21:00:00	25.737	2.749
60	1/31/1979	12:00:00	25.664	2.735
61	3/2/1983	19:00:00	25.632	2.728
62	12/29/2004	4:00:00	25.598	2.721
63	2/10/1978	6:00:00	25.562	2.714
64	2/18/1980	9:00:00	25.470	2.695
65	2/8/1976	21:00:00	25.440	2.689
66	10/27/2004	5:00:00	25.422	2.685
67	1/11/2005	5:00:00	25.233	2.647
68	10/20/2004	14:00:00	25.029	2.605
69	1/14/1978	20:00:00	24.998	2.599
70	1/27/2008	2:00:00	24.973	2.594
71	2/10/1978	5:00:00	24.691	2.537
72	2/15/1986	4:00:00	24.665	2.531
73	3/5/1995	18:00:00	24.397	2.477
74	10/27/2004	8:00:00	24.368	2.472
75	2/15/1986	6:00:00	24.306	2.459
76	2/19/1980	22:00:00	24.153	2.428
77	12/25/2003	19:00:00	24.105	2.419
78	3/2/1983	17:00:00	23.946	2.387
79	2/21/2005	11:00:00	23.846	2.367
80	3/1/1983	17:00:00	23.784	2.354
81	10/28/1974	13:00:00	23.723	2.342
82	2/28/1978	20:00:00	23.603	2.318
83	3/21/1983	5:00:00	23.486	2.295
84	2/13/1978	11:00:00	23.304	2.259
85	1/10/1978	8:00:00	23.157	2.230
86	1/11/1980	7:00:00	23.135	2.225
87	5/9/1977	0:00:00	22.961	2.191
88	10/27/2004	10:00:00	22.943	2.187
89	1/29/1980	18:00:00	22.844	2.168
90	2/27/1983	19:00:00	22.533	2.107
91	12/25/1988	1:00:00	22.520	2.104

92	2/27/1983	19:00:00	47.637	7.5430
93	2/28/1978	20:00:00	47.378	7.4841
94	2/21/2005	13:00:00	46.365	7.2542
95	12/25/1988	1:00:00	45.960	7.1624
96	1/29/1980	18:00:00	45.915	7.1522
97	10/27/2004	10:00:00	45.638	7.0895
98	10/20/2004	14:00:00	45.464	7.0501
99	3/27/1998	17:00:00	45.302	7.0134
100	3/5/1995	18:00:00	44.894	6.9212
101	12/29/2004	2:00:00	44.552	6.8439
102	1/12/2001	12:00:00	44.514	6.8353
103	1/16/1979	2:00:00	44.368	6.8024
104	10/28/1974	13:00:00	44.198	6.7640
105	1/7/2008	1:00:00	43.836	6.6823
106	12/28/1977	13:00:00	43.651	6.6407
107	10/27/2004	6:00:00	42.670	6.4199
108	4/15/1976	21:00:00	42.490	6.3794
109	5/9/1977	0:00:00	42.226	6.3202
110	3/16/1986	11:00:00	42.097	6.2912
111	4/23/1980	4:00:00	40.878	6.0181
112	9/10/1976	9:00:00	40.403	5.9120
113	1/6/2008	7:00:00	39.730	5.7619
114	2/1/1996	2:00:00	38.784	5.5515
115	12/25/1988	0:00:00	38.754	5.5449
116	1/31/1979	6:00:00	38.643	5.5202
117	1/17/1990	3:00:00	38.193	5.4204
118	11/22/1996	3:00:00	38.177	5.4169
119	11/25/1985	7:00:00	37.841	5.3425
120	12/18/1984	18:00:00	37.797	5.3328
121	12/18/1978	18:00:00	37.274	5.2172
122	2/21/2005	12:00:00	36.983	5.1530
123	3/5/2005	0:00:00	36.863	5.1265
124	3/1/1991	9:00:00	36.503	5.0472
125	3/1/1991	7:00:00	36.317	5.0063
126	11/30/2007	23:00:00	36.172	4.9744
127	3/5/1995	19:00:00	35.884	4.9111
128	4/5/2006	7:00:00	35.733	4.8780
129	3/5/1995	16:00:00	35.216	4.7647
130	5/1/1978	5:00:00	35.006	4.7188
131	10/27/2004	9:00:00	34.997	4.7168
132	10/19/2004	16:00:00	34.807	4.6753
133	3/15/1986	23:00:00	33.630	4.4190
134	2/14/2001	17:00:00	32.487	4.1716
135	2/8/1994	7:00:00	32.234	4.1170
136	8/17/1977	1:00:00	31.173	3.8892
137	3/11/1995	4:00:00	31.050	3.8629
138	11/12/2003	7:00:00	31.048	3.8624
139	4/4/2006	23:00:00	31.040	3.8607
140	1/18/1993	14:00:00	30.589	3.7644
141	1/11/2005	8:00:00	30.263	3.6950
142	2/8/1983	7:00:00	29.906	3.6191

92	2/21/2005	13:00:00	22.448	2.090
93	3/1/1981	14:00:00	22.329	2.067
94	10/27/2004	7:00:00	21.952	1.993
95	12/18/1988	14:00:00	21.843	1.972
96	2/16/1980	19:00:00	21.812	1.966
97	1/8/1998	17:00:00	21.703	1.945
98	2/15/1986	5:00:00	21.578	1.920
99	1/12/2001	12:00:00	21.548	1.915
100	1/16/1979	2:00:00	21.304	1.868
101	2/27/1978	22:00:00	20.779	1.767
102	3/1/1991	9:00:00	20.682	1.749
103	3/5/1995	19:00:00	20.528	1.719
104	2/19/1980	16:00:00	20.400	1.695
105	3/1/1991	7:00:00	20.161	1.650
106	3/27/1998	17:00:00	20.153	1.649
107	9/10/1976	9:00:00	19.788	1.580
108	4/15/1976	21:00:00	19.620	1.549
109	1/6/2008	7:00:00	19.616	1.548
110	3/16/1986	11:00:00	19.125	1.457
111	12/18/1984	18:00:00	19.061	1.445
112	10/19/2004	16:00:00	19.041	1.442
113	1/7/2008	1:00:00	18.965	1.428
114	3/5/1995	16:00:00	18.960	1.427
115	12/29/2004	2:00:00	18.819	1.401
116	12/28/1977	13:00:00	18.586	1.359
117	2/21/2005	12:00:00	18.135	1.277
118	10/27/2004	6:00:00	18.030	1.259
119	8/17/1977	1:00:00	18.000	1.253
120	12/25/1988	0:00:00	17.729	1.205
121	10/27/2004	9:00:00	17.660	1.193
122	1/11/2005	8:00:00	17.187	1.110
123	1/31/1979	6:00:00	17.102	1.095
124	3/5/1995	22:00:00	17.003	1.078
125	1/17/1990	3:00:00	16.963	1.071
126	3/5/1995	21:00:00	16.943	1.067
127	2/1/1996	2:00:00	16.780	1.039
128	3/1/1991	10:00:00	16.760	1.036
129	1/15/1978	6:00:00	16.567	1.003
130	12/28/1977	8:00:00	16.403	0.975
131	1/7/1993	4:00:00	16.403	0.975
132	3/1/1991	8:00:00	16.336	0.964
133	11/30/2007	23:00:00	16.124	0.928
134	2/18/1980	6:00:00	16.069	0.919
135	1/17/1978	3:00:00	15.972	0.902
136	1/16/1993	11:00:00	15.971	0.902
137	1/7/1993	3:00:00	15.852	0.882
138	1/29/1980	19:00:00	15.797	0.873
139	1/15/1978	3:00:00	15.758	0.867
140	12/18/1978	18:00:00	15.706	0.858
141	1/11/1980	12:00:00	15.699	0.857
142	1/11/2005	3:00:00	15.596	0.840

143	1/7/1993	4:00:00	29.819	3.6007
144	1/7/1993	3:00:00	29.568	3.5475
145	1/29/1983	1:00:00	29.548	3.5433
146	12/28/2004	22:00:00	29.439	3.5202
147	1/17/1978	3:00:00	29.377	3.5071
148	2/8/1983	6:00:00	29.362	3.5039
149	3/12/1978	2:00:00	29.298	3.4904
150	1/16/1993	11:00:00	29.218	3.4735
151	1/15/1978	6:00:00	29.215	3.4729
152	1/9/2005	5:00:00	29.201	3.4699
153	3/18/1983	23:00:00	29.178	3.4651
154	1/15/1978	3:00:00	29.166	3.4625
155	3/12/1978	1:00:00	29.136	3.4562
156	1/11/2005	3:00:00	29.133	3.4556
157	2/15/1986	3:00:00	29.124	3.4537
158	2/18/1980	6:00:00	28.816	3.3888
159	1/15/1978	2:00:00	28.762	3.3774
160	2/23/2004	17:00:00	28.754	3.3757
161	1/7/1993	0:00:00	28.670	3.3581
162	2/27/1983	18:00:00	28.641	3.3520
163	3/11/2006	1:00:00	28.591	3.3415
164	1/16/1993	10:00:00	28.455	3.3129
165	1/11/1980	12:00:00	28.306	3.2817
166	1/11/1980	9:00:00	28.201	3.2597
167	2/26/1983	15:00:00	28.059	3.2299
168	11/12/2003	6:00:00	27.996	3.2168
169	12/23/1982	1:00:00	27.993	3.2161
170	3/5/2005	1:00:00	27.950	3.2072
171	3/12/1978	0:00:00	27.897	3.1961
172	3/1/1991	10:00:00	27.473	3.1077
173	12/7/1992	17:00:00	27.457	3.1044
174	12/18/1984	16:00:00	27.356	3.0834
175	3/1/1991	8:00:00	27.344	3.0809
176	2/11/2005	16:00:00	27.146	3.0398
177	3/5/1995	21:00:00	27.086	3.0273
178	3/5/1995	22:00:00	27.073	3.0246
179	3/2/1992	15:00:00	27.057	3.0213
180	2/1/1996	4:00:00	26.997	3.0089
181	1/29/1980	19:00:00	26.913	2.9915
182	2/7/1976	4:00:00	26.817	2.9716
183	1/12/1997	17:00:00	26.469	2.8998
184	3/1/1978	9:00:00	26.436	2.8930
185	2/8/1976	19:00:00	26.400	2.8856
186	3/1/1978	11:00:00	26.385	2.8825
187	1/5/1974	2:00:00	26.372	2.8798
188	3/6/1980	5:00:00	26.286	2.8621
189	3/1/1978	8:00:00	26.267	2.8582
190	2/14/1980	17:00:00	25.904	2.7837
191	1/5/1974	1:00:00	25.822	2.7669
192	11/11/1985	11:00:00	25.797	2.7617
193	11/20/1983	12:00:00	25.772	2.7566

143	3/3/1983	7:00:00	15.278	0.788
144	3/1/1978	11:00:00	15.155	0.768
145	1/16/1993	10:00:00	15.040	0.750
146	2/8/1983	7:00:00	15.025	0.748
147	12/6/1986	18:00:00	14.947	0.735
148	3/1/1978	9:00:00	14.927	0.732
149	1/11/1980	9:00:00	14.856	0.721
150	3/12/1978	2:00:00	14.848	0.719
151	1/15/1978	2:00:00	14.763	0.706
152	3/12/1978	1:00:00	14.754	0.705
153	10/20/2004	17:00:00	14.547	0.672
154	1/31/1979	10:00:00	14.451	0.657
155	11/22/1996	3:00:00	14.447	0.657
156	3/1/1978	8:00:00	14.395	0.648
157	1/18/1993	14:00:00	14.382	0.646
158	1/7/1993	0:00:00	14.266	0.629
159	3/5/1995	13:00:00	14.116	0.606
160	3/15/1986	23:00:00	14.099	0.603
161	3/28/1979	21:00:00	13.817	0.561
162	1/31/1979	9:00:00	13.806	0.559
163	2/8/1976	19:00:00	13.788	0.556
164	3/5/1995	12:00:00	13.780	0.555
165	1/5/1974	2:00:00	13.727	0.547
166	4/5/2006	7:00:00	13.658	0.537
167	3/12/1978	0:00:00	13.607	0.529
168	3/3/1983	9:00:00	13.515	0.516
169	3/1/1978	7:00:00	13.419	0.502
170	2/1/1996	4:00:00	13.412	0.501
171	8/17/1977	4:00:00	13.289	0.483
172	11/25/1985	7:00:00	13.284	0.482
173	1/5/1974	1:00:00	13.172	0.466
174	2/21/1980	5:00:00	13.157	0.464
175	10/20/1979	16:00:00	13.114	0.458
176	2/14/2001	17:00:00	12.928	0.432
177	3/1/1991	11:00:00	12.756	0.408
178	1/5/1974	0:00:00	12.742	0.406
179	10/20/1979	15:00:00	12.735	0.405
180	8/17/1977	2:00:00	12.431	0.364
181	2/9/1976	3:00:00	12.361	0.355
182	2/8/1983	6:00:00	12.352	0.353
183	1/29/1983	1:00:00	12.185	0.331
184	2/8/1994	8:00:00	12.175	0.330
185	1/31/1979	7:00:00	12.158	0.328
186	3/3/1983	8:00:00	12.010	0.309
187	1/9/2005	5:00:00	11.959	0.302
188	3/5/2005	1:00:00	11.953	0.301
189	3/5/2005	0:00:00	11.827	0.286
190	2/8/1994	7:00:00	11.822	0.285
191	1/31/1979	17:00:00	11.788	0.281
192	12/18/1984	16:00:00	11.766	0.278
193	3/1/1991	6:00:00	11.555	0.252

194	1/31/1979	10:00:00	25.753	2.7527
195	2/28/2006	0:00:00	25.709	2.7437
196	2/8/1994	8:00:00	25.584	2.7182
197	3/28/1979	21:00:00	25.536	2.7084
198	3/1/1978	7:00:00	25.528	2.7068
199	2/9/1981	2:00:00	25.474	2.6957
200	3/5/1995	13:00:00	25.320	2.6644
201	1/31/1979	9:00:00	25.316	2.6636
202	2/19/2007	13:00:00	25.146	2.6290
203	1/5/1974	0:00:00	25.024	2.6042
204	3/13/1996	9:00:00	25.015	2.6024
205	1/10/1995	20:00:00	24.901	2.5793
206	2/19/1993	17:00:00	24.859	2.5707
207	12/28/2004	19:00:00	24.857	2.5703
208	3/6/1980	10:00:00	24.709	2.5404
209	3/5/1995	12:00:00	24.645	2.5275
210	10/14/2006	0:00:00	24.495	2.4972
211	10/10/1986	4:00:00	24.191	2.4360
212	12/4/1987	22:00:00	24.146	2.4269
213	2/13/1978	13:00:00	23.909	2.3794
214	1/4/2005	4:00:00	23.484	2.2946
215	2/5/1978	15:00:00	23.250	2.2481
216	2/14/1995	11:00:00	23.132	2.2247
217	1/31/1979	7:00:00	22.833	2.1656
218	12/6/1986	18:00:00	22.531	2.1062
219	12/7/1992	14:00:00	22.103	2.0224
220	2/9/1976	3:00:00	21.959	1.9944
221	2/13/1992	6:00:00	21.953	1.9932
222	11/11/1978	22:00:00	21.594	1.9236
223	8/17/1977	4:00:00	21.573	1.9195
224	4/28/2005	23:00:00	21.389	1.8840
225	3/24/1998	17:00:00	21.350	1.8765
226	1/27/1983	11:00:00	21.339	1.8744
227	10/20/1979	16:00:00	21.227	1.8528
228	11/25/1985	1:00:00	21.086	1.8258
229	1/29/1983	2:00:00	20.806	1.7723
230	3/16/1986	22:00:00	20.803	1.7717
231	2/7/1976	5:00:00	20.709	1.7538
232	1/4/1974	23:00:00	20.494	1.7130
233	3/11/2006	3:00:00	20.170	1.6518
234	2/14/1995	10:00:00	20.022	1.6239
235	1/4/1974	20:00:00	20.019	1.6234
236	3/22/2005	23:00:00	19.967	1.6136
237	12/18/1984	19:00:00	19.955	1.6114
238	4/5/2006	2:00:00	19.946	1.6097
239	4/20/1988	9:00:00	19.898	1.6007
240	12/11/1984	11:00:00	19.801	1.5826
241	1/27/2008	3:00:00	19.729	1.5691
242	10/20/1979	15:00:00	19.710	1.5656
243	11/20/1983	11:00:00	19.688	1.5615
244	1/25/1995	23:00:00	19.625	1.5497

194	10/19/2004	19:00:00	11.539	0.250
195	2/21/1980	6:00:00	11.257	0.217
196	2/23/2004	17:00:00	11.197	0.210
197	2/27/1983	18:00:00	11.115	0.200
198	2/13/1978	13:00:00	11.059	0.194
199	3/16/1986	22:00:00	11.054	0.193
200	3/18/1983	23:00:00	11.018	0.189
201	12/18/1984	19:00:00	10.944	0.181
202	1/27/2008	3:00:00	10.931	0.180
203	2/21/1980	1:00:00	10.816	0.167
204	1/29/1983	2:00:00	10.772	0.162
205	2/19/1993	17:00:00	10.766	0.162
206	3/3/1983	10:00:00	10.671	0.152
207	3/1/1991	5:00:00	10.576	0.142
208	10/20/2004	18:00:00	10.527	0.137
209	12/18/1984	17:00:00	10.459	0.130
210	12/11/1984	11:00:00	10.378	0.122
211	10/19/2004	18:00:00	10.317	0.116
212	1/25/1995	23:00:00	10.208	0.106
213	4/23/1980	4:00:00	9.981	0.085
214	3/5/1995	15:00:00	9.916	0.079
215	1/7/2008	3:00:00	9.912	0.079
216	3/11/1995	4:00:00	9.893	0.077
217	2/7/1976	5:00:00	9.825	0.071
218	1/5/1992	16:00:00	9.746	0.065
219	1/8/1993	0:00:00	9.674	0.059
220	1/29/1980	23:00:00	9.629	0.056
221	12/28/2004	22:00:00	9.619	0.055
222	1/4/1974	23:00:00	9.576	0.052
223	11/12/2003	7:00:00	9.536	0.049
224	10/20/1979	14:00:00	9.459	0.043
225	5/1/1978	5:00:00	9.450	0.042
226	4/4/2006	23:00:00	9.432	0.041
227	2/21/1980	3:00:00	9.299	0.032
228	2/1/1996	3:00:00	9.271	0.030
229	2/21/1980	2:00:00	9.268	0.030
230	2/7/1976	4:00:00	9.249	0.029
231	12/7/1992	17:00:00	9.232	0.028
232	1/11/2005	6:00:00	9.212	0.026
233	1/2/2006	16:00:00	9.146	0.023
234	1/31/1979	18:00:00	9.129	0.022
235	5/8/1977	23:00:00	9.119	0.021
236	3/2/1992	15:00:00	9.025	0.016
237	10/27/2004	15:00:00	9.004	0.015
238	12/25/2003	20:00:00	8.976	0.013
239	1/11/2005	7:00:00	8.858	0.008
240	3/26/1991	3:00:00	8.856	0.008
241	2/14/1980	17:00:00	8.848	0.008
242	2/21/1980	7:00:00	8.843	0.007
243	1/29/1980	13:00:00	8.834	0.007
244	3/1/1991	12:00:00	8.827	0.007

296	12/19/1978	9:00:00	17.303	1.1300
297	2/22/1998	17:00:00	17.299	1.1293
298	1/27/1983	13:00:00	17.297	1.1289
299	3/24/1983	4:00:00	17.237	1.1184
300	10/19/2004	19:00:00	17.170	1.1067
301	3/16/1986	17:00:00	17.123	1.0986
302	1/16/1978	23:00:00	17.113	1.0968
303	1/29/1980	13:00:00	17.110	1.0963
304	3/2/1978	10:00:00	17.075	1.0902
305	3/5/1978	5:00:00	17.054	1.0866
306	11/24/1978	7:00:00	17.054	1.0866
307	1/4/1987	19:00:00	17.026	1.0817
308	12/7/1992	13:00:00	17.017	1.0802
309	1/18/1979	18:00:00	16.996	1.0765
310	3/1/1991	5:00:00	16.980	1.0737
311	4/20/1983	11:00:00	16.949	1.0684
312	11/4/1987	23:00:00	16.901	1.0601
313	1/6/1979	3:00:00	16.849	1.0511
314	1/3/2005	10:00:00	16.754	1.0348
315	3/11/2006	13:00:00	16.729	1.0305
316	2/19/2007	16:00:00	16.656	1.0180
317	1/11/1980	1:00:00	16.655	1.0178
318	3/2/1981	2:00:00	16.534	0.9971
319	3/5/1995	15:00:00	16.509	0.9929
320	2/7/1998	16:00:00	16.423	0.9783
321	2/12/2005	16:00:00	16.408	0.9757
322	1/19/1980	3:00:00	16.361	0.9677
323	1/7/1993	16:00:00	16.355	0.9667
324	3/5/1978	16:00:00	16.326	0.9618
325	1/14/1990	4:00:00	16.299	0.9573
326	1/29/1980	9:00:00	16.237	0.9468
327	12/18/1978	23:00:00	16.202	0.9409
328	2/12/2005	8:00:00	16.176	0.9365
329	2/11/1978	12:00:00	16.028	0.9117
330	12/20/2002	17:00:00	15.985	0.9045
331	1/28/2005	17:00:00	15.892	0.8890
332	2/22/2008	7:00:00	15.871	0.8856
333	12/5/2004	15:00:00	15.821	0.8773
334	2/8/1993	21:00:00	15.748	0.8652
335	11/23/1973	3:00:00	15.714	0.8596
336	2/27/1996	23:00:00	15.667	0.8518
337	12/3/1983	17:00:00	15.644	0.8480
338	3/11/1995	7:00:00	15.634	0.8464
339	3/24/1994	23:00:00	15.571	0.8360
340	1/12/1993	16:00:00	15.552	0.8329
341	3/10/1986	21:00:00	15.436	0.8140
342	1/29/1980	4:00:00	15.434	0.8136
343	2/6/1976	7:00:00	15.431	0.8132
344	3/11/1978	23:00:00	15.380	0.8049
345	1/11/2005	2:00:00	15.159	0.7691
346	3/10/1980	18:00:00	15.061	0.7534

347	4/7/1978	5:00:00	15.018	0.7465
348	1/6/1992	12:00:00	14.964	0.7379
349	3/2/1983	16:00:00	14.961	0.7374
350	11/4/1987	19:00:00	14.904	0.7283
351	2/5/1978	18:00:00	14.888	0.7258
352	12/25/2003	20:00:00	14.820	0.7150
353	12/29/2004	6:00:00	14.809	0.7133
354	4/2/1974	6:00:00	14.758	0.7052
355	1/7/1993	8:00:00	14.758	0.7052
356	1/15/1993	19:00:00	14.727	0.7003
357	1/12/1993	19:00:00	14.570	0.6757
358	1/29/1980	2:00:00	14.565	0.6749
359	1/9/2005	23:00:00	14.451	0.6572
360	1/4/1974	21:00:00	14.429	0.6538
361	11/24/1978	3:00:00	14.355	0.6423
362	1/13/1993	21:00:00	14.291	0.6325
363	2/22/2005	22:00:00	14.263	0.6282
364	2/14/1995	12:00:00	14.250	0.6262
365	3/1/1978	6:00:00	14.235	0.6239
366	11/23/1973	0:00:00	14.047	0.5952
367	4/14/1998	17:00:00	14.018	0.5908
368	1/6/1993	22:00:00	13.825	0.5618
369	3/1/1983	15:00:00	13.767	0.5532
370	1/5/1978	22:00:00	13.758	0.5518
371	12/17/1978	23:00:00	13.740	0.5491
372	12/11/1984	10:00:00	13.679	0.5401
373	4/5/2006	1:00:00	13.647	0.5354
374	2/20/1980	5:00:00	13.594	0.5275
375	12/27/1984	4:00:00	13.518	0.5164
376	1/9/1978	19:00:00	13.497	0.5133
377	11/24/1984	22:00:00	13.493	0.5127
378	2/21/2005	7:00:00	13.429	0.5034
379	1/14/1990	5:00:00	13.293	0.4837
380	12/7/1992	15:00:00	13.134	0.4610
381	2/11/2003	17:00:00	13.099	0.4560
382	10/27/2004	15:00:00	13.057	0.4500
383	2/28/2006	2:00:00	12.984	0.4398
384	12/6/1998	7:00:00	12.929	0.4320
385	1/26/1997	3:00:00	12.865	0.4231
386	1/11/2001	7:00:00	12.709	0.4015
387	1/11/2005	6:00:00	12.687	0.3985
388	1/10/1995	21:00:00	12.653	0.3939
389	2/2/1998	16:00:00	12.552	0.3801
390	3/5/1981	18:00:00	12.472	0.3694
391	1/6/1993	14:00:00	12.429	0.3636
392	3/12/1995	0:00:00	12.250	0.3398
393	1/31/1996	21:00:00	12.169	0.3292
394	1/11/2005	7:00:00	12.087	0.3186
395	2/7/1978	18:00:00	12.077	0.3173
396	11/29/1985	15:00:00	12.015	0.3093
397	1/7/1993	5:00:00	11.967	0.3032

398	10/31/1987	18:00:00	11.926	0.2980
399	12/19/1978	7:00:00	11.872	0.2912
400	1/14/1978	19:00:00	11.844	0.2876
401	2/5/1976	17:00:00	11.833	0.2863
402	2/12/2005	11:00:00	11.803	0.2825
403	2/5/1976	3:00:00	11.716	0.2717
404	3/16/1986	23:00:00	11.710	0.2709
405	1/16/1993	12:00:00	11.596	0.2569
406	1/7/1993	6:00:00	11.562	0.2528
407	2/15/1986	9:00:00	11.538	0.2499
408	1/7/2008	5:00:00	11.432	0.2372
409	2/20/1993	7:00:00	11.425	0.2363
410	9/25/1986	7:00:00	11.307	0.2224
411	1/5/1992	20:00:00	11.300	0.2216
412	1/18/1979	8:00:00	11.189	0.2087
413	1/5/1992	19:00:00	11.167	0.2062
414	1/16/1993	13:00:00	11.104	0.1990
415	1/5/1992	15:00:00	11.078	0.1961
416	1/5/1992	17:00:00	11.067	0.1948
417	5/2/1980	0:00:00	11.021	0.1897
418	1/5/1992	18:00:00	11.016	0.1891
419	11/25/1985	10:00:00	10.992	0.1864
420	3/1/1981	5:00:00	10.925	0.1790
421	3/6/1980	8:00:00	10.898	0.1760
422	1/27/1983	9:00:00	10.893	0.1755
423	3/2/1992	10:00:00	10.876	0.1736
424	2/8/1976	17:00:00	10.834	0.1691
425	1/6/1979	4:00:00	10.774	0.1626
426	11/21/2004	8:00:00	10.736	0.1586
427	1/2/2006	16:00:00	10.735	0.1585
428	3/6/1975	12:00:00	10.733	0.1582
429	1/12/2001	13:00:00	10.720	0.1569
430	2/2/1983	15:00:00	10.711	0.1559
431	11/25/1985	9:00:00	10.704	0.1552
432	2/28/2006	8:00:00	10.649	0.1494
433	1/25/1995	21:00:00	10.628	0.1472
434	2/7/1998	15:00:00	10.587	0.1430
435	12/4/1974	13:00:00	10.570	0.1412
436	3/2/1983	22:00:00	10.467	0.1307
437	12/17/1987	7:00:00	10.463	0.1303
438	3/1/1991	2:00:00	10.457	0.1297
439	3/3/1983	5:00:00	10.442	0.1282
440	12/30/1981	15:00:00	10.436	0.1276
441	1/7/1993	2:00:00	10.411	0.1252
442	3/3/1983	9:00:00	10.339	0.1181
443	9/3/1976	17:00:00	10.271	0.1115
444	12/11/1984	8:00:00	10.222	0.1068
445	2/28/1983	2:00:00	10.191	0.1039
446	3/3/1983	3:00:00	10.135	0.0987
447	2/13/1998	16:00:00	10.087	0.0943
448	1/7/2005	14:00:00	10.076	0.0933

449	1/10/2005	1:00:00	10.035	0.0896
450	1/13/1993	23:00:00	9.938	0.0810
451	3/12/1986	14:00:00	9.923	0.0797
452	3/12/1986	13:00:00	9.897	0.0775
453	10/19/2004	14:00:00	9.886	0.0765
454	1/7/1993	22:00:00	9.871	0.0753
455	2/1/1996	5:00:00	9.840	0.0726
456	10/20/2004	17:00:00	9.836	0.0723
457	1/9/2005	9:00:00	9.829	0.0717
458	1/12/1995	14:00:00	9.801	0.0694
459	3/8/1975	13:00:00	9.773	0.0671
460	1/7/1993	20:00:00	9.696	0.0608
461	3/25/1994	0:00:00	9.670	0.0588
462	2/22/2005	21:00:00	9.632	0.0558
463	12/29/2004	3:00:00	9.628	0.0555
464	2/7/1998	18:00:00	9.620	0.0549
465	2/22/2005	20:00:00	9.548	0.0494
466	3/1/1991	12:00:00	9.519	0.0473
467	2/12/2005	7:00:00	9.512	0.0468
468	1/15/1993	13:00:00	9.493	0.0454
469	10/20/1979	14:00:00	9.431	0.0409
470	11/25/1985	5:00:00	9.404	0.0390
471	4/29/1980	1:00:00	9.378	0.0373
472	1/6/1993	23:00:00	9.368	0.0366
473	4/20/1983	10:00:00	9.363	0.0362
474	1/10/1980	12:00:00	9.311	0.0328
475	11/11/1985	13:00:00	9.299	0.0320
476	3/5/2005	2:00:00	9.292	0.0315
477	3/12/1986	12:00:00	9.279	0.0307
478	1/26/1997	9:00:00	9.203	0.0259
479	11/24/1984	23:00:00	9.191	0.0252
480	1/13/1993	1:00:00	9.164	0.0236
481	1/14/1993	1:00:00	9.132	0.0217
482	12/7/1992	20:00:00	9.042	0.0167
483	4/26/1994	18:00:00	9.028	0.0160
484	3/16/1986	0:00:00	8.902	0.0099
485	1/7/1993	11:00:00	8.884	0.0091
486	1/26/1997	8:00:00	8.846	0.0075
487	5/8/1977	23:00:00	8.846	0.0075
488	11/1/1974	23:00:00	8.839	0.0072
489	1/12/1993	20:00:00	8.752	0.0040
490	2/21/2005	6:00:00	8.730	0.0033
491	3/2/1983	2:00:00	8.688	0.0021
492	1/17/1993	5:00:00	8.621	0.0006

ΣW_{PRE} : 1927

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.250	(1/4)
3m/2	0.375	

SUMMARY

(a) ΣW_{PRE} :	1927
(b) ΣW_{POST} :	529
(c) S_{RUSLE} :	1.577
(d) S_{NHD} :	N/A

E_p :	0.274	[(b)/(a)]
S_p :	1.577	[(c)]

E_p / S_p :	0.2
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 1B - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		8.571		cfs
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	198.404	132.871
2	2/20/1980	19:00:00	190.273	126.286
3	10/22/1976	17:00:00	157.629	100.176
4	9/10/1976	10:00:00	138.859	85.448
5	10/31/1987	19:00:00	127.957	77.009
6	2/7/1998	17:00:00	127.314	76.515
7	10/22/1976	16:00:00	122.524	72.840
8	1/9/2005	21:00:00	121.811	72.295
9	1/29/1980	7:00:00	115.633	67.590
10	2/2/1998	17:00:00	113.403	65.9002
11	2/6/1992	20:00:00	112.983	65.5825
12	10/18/2004	13:00:00	111.594	64.5332
13	10/20/2004	12:00:00	109.297	62.8024
14	2/13/1998	17:00:00	106.245	60.5111
15	2/19/1993	16:00:00	103.849	58.7194
16	1/31/1979	14:00:00	96.159	53.0137
17	3/1/1983	16:00:00	94.807	52.0180
18	1/9/2005	20:00:00	93.737	51.2316
19	8/17/1977	3:00:00	89.151	47.8787
20	3/2/1983	18:00:00	85.712	45.3836
21	2/21/2005	14:00:00	83.310	43.6513
22	2/15/1992	15:00:00	82.180	42.8395
23	3/6/1975	11:00:00	81.021	42.0089
24	4/18/1995	12:00:00	78.346	40.1002
25	3/3/1983	1:00:00	75.849	38.3296
26	2/20/1980	20:00:00	75.540	38.1112
27	10/27/2004	5:00:00	74.580	37.4339
28	2/18/1980	5:00:00	74.233	37.1895
29	3/4/1978	18:00:00	74.156	37.1353
30	2/16/1980	20:00:00	73.975	37.0080
31	1/31/1979	16:00:00	73.567	36.7211
32	1/31/1979	13:00:00	72.914	36.2626
33	1/18/1993	6:00:00	72.253	35.7993
34	12/4/1974	12:00:00	71.948	35.5858
35	2/12/2003	17:00:00	70.355	34.4737
36	1/31/1979	8:00:00	70.059	34.2676
37	2/25/2003	17:00:00	69.057	33.5712
38	1/13/1993	22:00:00	68.899	33.4616
39	1/9/1980	13:00:00	68.456	33.1545
40	10/10/1986	0:00:00	68.450	33.1504

Work Calculations, Post-Development Conditions				
Low flow Threshold:		8.571		cfs
Type of flow:		10% of Q_2		
Notes:				
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	2/20/1980	19:00:00	90.420	48.804
2	1/4/1978	21:00:00	87.967	47.018
3	10/22/1976	17:00:00	72.431	35.924
4	9/10/1976	10:00:00	65.752	31.289
5	2/7/1998	17:00:00	59.408	26.978
6	10/31/1987	19:00:00	58.986	26.695
7	1/9/2005	21:00:00	57.800	25.901
8	1/29/1980	7:00:00	54.818	23.922
9	2/2/1998	17:00:00	53.569	23.101
10	10/18/2004	13:00:00	53.412	22.998
11	10/20/2004	12:00:00	53.321	22.938
12	10/22/1976	16:00:00	52.268	22.250
13	2/13/1998	17:00:00	50.388	21.031
14	2/6/1992	20:00:00	50.378	21.024
15	1/31/1979	14:00:00	47.879	19.421
16	2/19/1993	16:00:00	45.815	18.113
17	3/1/1983	16:00:00	44.389	17.219
18	8/17/1977	3:00:00	44.267	17.143
19	1/9/2005	20:00:00	44.029	16.994
20	3/2/1983	18:00:00	41.919	15.689
21	2/21/2005	14:00:00	40.334	14.722
22	2/20/1980	20:00:00	38.650	13.706
23	1/31/1979	16:00:00	37.902	13.259
24	3/3/1983	1:00:00	37.844	13.225
25	1/31/1979	13:00:00	36.842	12.631
26	2/15/1992	15:00:00	36.577	12.475
27	3/4/1978	18:00:00	36.053	12.167
28	2/18/1980	5:00:00	35.924	12.091
29	4/18/1995	12:00:00	35.745	11.987
30	2/16/1980	20:00:00	35.475	11.829
31	3/3/1983	6:00:00	34.506	11.267
32	1/18/1993	6:00:00	34.431	11.224
33	10/20/2004	16:00:00	33.954	10.950
34	10/28/1974	12:00:00	33.740	10.827
35	1/31/1979	8:00:00	33.702	10.805
36	10/20/2004	15:00:00	33.656	10.779
37	2/25/2003	17:00:00	33.504	10.692
38	2/12/2003	17:00:00	33.238	10.540
39	1/9/1980	13:00:00	33.129	10.478
40	10/20/2004	13:00:00	33.082	10.451

41	3/3/1983	6:00:00	66.967	32.1254
42	10/28/1974	12:00:00	65.883	31.3792
43	10/20/2004	16:00:00	63.940	30.0482
44	10/20/2004	15:00:00	63.853	29.9888
45	10/20/2004	13:00:00	63.751	29.9192
46	10/28/1974	11:00:00	63.482	29.7357
47	2/16/1998	17:00:00	61.628	28.4757
48	10/19/2004	8:00:00	60.292	27.5729
49	2/15/1986	4:00:00	59.751	27.2086
50	3/21/1983	5:00:00	57.998	26.0332
51	1/11/2005	4:00:00	57.730	25.8542
52	2/23/2005	4:00:00	55.080	24.0950
53	1/25/1995	19:00:00	55.016	24.0528
54	3/16/1986	21:00:00	54.957	24.0138
55	3/5/1995	20:00:00	54.340	23.6073
56	10/27/2004	14:00:00	53.876	23.3023
57	3/5/1995	17:00:00	53.850	23.2852
58	1/27/2008	2:00:00	53.130	22.8133
59	12/29/2004	4:00:00	52.500	22.4016
60	2/10/1978	6:00:00	52.487	22.3931
61	2/10/1978	5:00:00	52.317	22.2822
62	1/15/1978	4:00:00	52.194	22.2021
63	12/28/1977	8:00:00	51.816	21.9560
64	12/25/2003	19:00:00	51.690	21.8741
65	2/21/2005	11:00:00	51.645	21.8449
66	1/11/1980	13:00:00	51.581	21.8033
67	2/15/1986	6:00:00	51.457	21.7227
68	10/27/2004	8:00:00	51.157	21.5281
69	2/9/1976	1:00:00	51.042	21.4536
70	2/8/1976	22:00:00	51.037	21.4503
71	2/8/1976	21:00:00	50.821	21.3105
72	1/14/1978	20:00:00	50.297	20.9718
73	2/18/1980	9:00:00	50.146	20.8743
74	1/29/1980	20:00:00	49.861	20.6907
75	2/13/1978	11:00:00	49.558	20.4957
76	2/19/1980	22:00:00	49.517	20.4693
77	1/31/1979	12:00:00	49.465	20.4359
78	12/18/1988	14:00:00	49.321	20.3433
79	3/1/1983	17:00:00	49.052	20.1707
80	3/2/1983	19:00:00	49.043	20.1649
81	1/10/1978	8:00:00	48.872	20.0553
82	1/8/1998	17:00:00	48.734	19.9669
83	1/11/2005	5:00:00	48.697	19.9432
84	2/19/1980	16:00:00	48.547	19.8473
85	3/1/1981	14:00:00	48.486	19.8082
86	2/15/1986	5:00:00	48.435	19.7756
87	1/11/1980	7:00:00	48.406	19.7571
88	3/2/1983	17:00:00	48.383	19.7424
89	2/16/1980	19:00:00	48.067	19.5406
90	2/27/1978	22:00:00	48.038	19.5221
91	10/27/2004	7:00:00	47.853	19.4042

41	3/6/1975	11:00:00	32.356	10.040
42	10/28/1974	11:00:00	32.208	9.957
43	12/4/1974	12:00:00	32.172	9.936
44	1/13/1993	22:00:00	31.275	9.434
45	10/19/2004	8:00:00	30.169	8.822
46	3/5/1995	20:00:00	29.159	8.271
47	1/11/2005	4:00:00	29.073	8.224
48	2/16/1998	17:00:00	28.811	8.082
49	10/10/1986	0:00:00	28.415	7.869
50	3/5/1995	17:00:00	28.087	7.694
51	2/23/2005	4:00:00	27.660	7.467
52	1/11/1980	13:00:00	26.812	7.020
53	1/15/1978	4:00:00	26.741	6.983
54	2/9/1976	1:00:00	26.656	6.938
55	1/29/1980	20:00:00	26.427	6.819
56	2/8/1976	22:00:00	26.013	6.604
57	10/27/2004	14:00:00	25.917	6.555
58	1/25/1995	19:00:00	25.906	6.549
59	3/16/1986	21:00:00	25.737	6.462
60	1/31/1979	12:00:00	25.664	6.425
61	3/2/1983	19:00:00	25.632	6.408
62	12/29/2004	4:00:00	25.598	6.391
63	2/10/1978	6:00:00	25.562	6.372
64	2/18/1980	9:00:00	25.470	6.325
65	2/8/1976	21:00:00	25.440	6.310
66	10/27/2004	5:00:00	25.422	6.301
67	1/11/2005	5:00:00	25.233	6.204
68	10/20/2004	14:00:00	25.029	6.100
69	1/14/1978	20:00:00	24.998	6.085
70	1/27/2008	2:00:00	24.973	6.072
71	2/10/1978	5:00:00	24.691	5.929
72	2/15/1986	4:00:00	24.665	5.916
73	3/5/1995	18:00:00	24.397	5.782
74	10/27/2004	8:00:00	24.368	5.767
75	2/15/1986	6:00:00	24.306	5.736
76	2/19/1980	22:00:00	24.153	5.660
77	12/25/2003	19:00:00	24.105	5.636
78	3/2/1983	17:00:00	23.946	5.557
79	2/21/2005	11:00:00	23.846	5.507
80	3/1/1983	17:00:00	23.784	5.476
81	10/28/1974	13:00:00	23.723	5.446
82	2/28/1978	20:00:00	23.603	5.387
83	3/21/1983	5:00:00	23.486	5.329
84	2/13/1978	11:00:00	23.304	5.240
85	1/10/1978	8:00:00	23.157	5.168
86	1/11/1980	7:00:00	23.135	5.157
87	5/9/1977	0:00:00	22.961	5.072
88	10/27/2004	10:00:00	22.943	5.063
89	1/29/1980	18:00:00	22.844	5.015
90	2/27/1983	19:00:00	22.533	4.865
91	12/25/1988	1:00:00	22.520	4.859

92	2/27/1983	19:00:00	47.637	19.2667
93	2/28/1978	20:00:00	47.378	19.1019
94	2/21/2005	13:00:00	46.365	18.4600
95	12/25/1988	1:00:00	45.960	18.2045
96	1/29/1980	18:00:00	45.915	18.1761
97	10/27/2004	10:00:00	45.638	18.0017
98	10/20/2004	14:00:00	45.464	17.8923
99	3/27/1998	17:00:00	45.302	17.7905
100	3/5/1995	18:00:00	44.894	17.5347
101	12/29/2004	2:00:00	44.552	17.3208
102	1/12/2001	12:00:00	44.514	17.2970
103	1/16/1979	2:00:00	44.368	17.2058
104	10/28/1974	13:00:00	44.198	17.0998
105	1/7/2008	1:00:00	43.836	16.8743
106	12/28/1977	13:00:00	43.651	16.7593
107	10/27/2004	6:00:00	42.670	16.1518
108	4/15/1976	21:00:00	42.490	16.0408
109	5/9/1977	0:00:00	42.226	15.8781
110	3/16/1986	11:00:00	42.097	15.7988
111	4/23/1980	4:00:00	40.878	15.0525
112	9/10/1976	9:00:00	40.403	14.7635
113	1/6/2008	7:00:00	39.730	14.3558
114	2/1/1996	2:00:00	38.784	13.7862
115	12/25/1988	0:00:00	38.754	13.7682
116	1/31/1979	6:00:00	38.643	13.7017
117	1/17/1990	3:00:00	38.193	13.4326
118	11/22/1996	3:00:00	38.177	13.4231
119	11/25/1985	7:00:00	37.841	13.2228
120	12/18/1984	18:00:00	37.797	13.1966
121	12/18/1978	18:00:00	37.274	12.8862
122	2/21/2005	12:00:00	36.983	12.7140
123	3/5/2005	0:00:00	36.863	12.6432
124	3/1/1991	9:00:00	36.503	12.4311
125	3/1/1991	7:00:00	36.317	12.3218
126	11/30/2007	23:00:00	36.172	12.2367
127	3/5/1995	19:00:00	35.884	12.0680
128	4/5/2006	7:00:00	35.733	11.9797
129	3/5/1995	16:00:00	35.216	11.6785
130	5/1/1978	5:00:00	35.006	11.5565
131	10/27/2004	9:00:00	34.997	11.5513
132	10/19/2004	16:00:00	34.807	11.4412
133	3/15/1986	23:00:00	33.630	10.7638
134	2/14/2001	17:00:00	32.487	10.1140
135	2/8/1994	7:00:00	32.234	9.9712
136	8/17/1977	1:00:00	31.173	9.3771
137	3/11/1995	4:00:00	31.050	9.3088
138	11/12/2003	7:00:00	31.048	9.3076
139	4/4/2006	23:00:00	31.040	9.3032
140	1/18/1993	14:00:00	30.589	9.0534
141	1/11/2005	8:00:00	30.263	8.8736
142	2/8/1983	7:00:00	29.906	8.6777

92	2/21/2005	13:00:00	22.448	4.824
93	3/1/1981	14:00:00	22.329	4.767
94	10/27/2004	7:00:00	21.952	4.587
95	12/18/1988	14:00:00	21.843	4.535
96	2/16/1980	19:00:00	21.812	4.521
97	1/8/1998	17:00:00	21.703	4.469
98	2/15/1986	5:00:00	21.578	4.410
99	1/12/2001	12:00:00	21.548	4.396
100	1/16/1979	2:00:00	21.304	4.282
101	2/27/1978	22:00:00	20.779	4.038
102	3/1/1991	9:00:00	20.682	3.993
103	3/5/1995	19:00:00	20.528	3.923
104	2/19/1980	16:00:00	20.400	3.864
105	3/1/1991	7:00:00	20.161	3.756
106	3/27/1998	17:00:00	20.153	3.752
107	9/10/1976	9:00:00	19.788	3.588
108	4/15/1976	21:00:00	19.620	3.513
109	1/6/2008	7:00:00	19.616	3.511
110	3/16/1986	11:00:00	19.125	3.294
111	12/18/1984	18:00:00	19.061	3.266
112	10/19/2004	16:00:00	19.041	3.257
113	1/7/2008	1:00:00	18.965	3.224
114	3/5/1995	16:00:00	18.960	3.222
115	12/29/2004	2:00:00	18.819	3.161
116	12/28/1977	13:00:00	18.586	3.060
117	2/21/2005	12:00:00	18.135	2.868
118	10/27/2004	6:00:00	18.030	2.823
119	8/17/1977	1:00:00	18.000	2.811
120	12/25/1988	0:00:00	17.729	2.697
121	10/27/2004	9:00:00	17.660	2.669
122	1/11/2005	8:00:00	17.187	2.474
123	1/31/1979	6:00:00	17.102	2.440
124	3/5/1995	22:00:00	17.003	2.399
125	1/17/1990	3:00:00	16.963	2.383
126	3/5/1995	21:00:00	16.943	2.375
127	2/1/1996	2:00:00	16.780	2.310
128	3/1/1991	10:00:00	16.760	2.302
129	1/15/1978	6:00:00	16.567	2.225
130	12/28/1977	8:00:00	16.403	2.160
131	1/7/1993	4:00:00	16.403	2.160
132	3/1/1991	8:00:00	16.336	2.134
133	11/30/2007	23:00:00	16.124	2.052
134	2/18/1980	6:00:00	16.069	2.030
135	1/17/1978	3:00:00	15.972	1.993
136	1/16/1993	11:00:00	15.971	1.993
137	1/7/1993	3:00:00	15.852	1.947
138	1/29/1980	19:00:00	15.797	1.926
139	1/15/1978	3:00:00	15.758	1.911
140	12/18/1978	18:00:00	15.706	1.891
141	1/11/1980	12:00:00	15.699	1.889
142	1/11/2005	3:00:00	15.596	1.850

143	1/7/1993	4:00:00	29.819	8.6301
144	1/7/1993	3:00:00	29.568	8.4930
145	1/29/1983	1:00:00	29.548	8.4821
146	12/28/2004	22:00:00	29.439	8.4227
147	1/17/1978	3:00:00	29.377	8.3890
148	2/8/1983	6:00:00	29.362	8.3808
149	3/12/1978	2:00:00	29.298	8.3461
150	1/16/1993	11:00:00	29.218	8.3026
151	1/15/1978	6:00:00	29.215	8.3010
152	1/9/2005	5:00:00	29.201	8.2934
153	3/18/1983	23:00:00	29.178	8.2809
154	1/15/1978	3:00:00	29.166	8.2744
155	3/12/1978	1:00:00	29.136	8.2582
156	1/11/2005	3:00:00	29.133	8.2565
157	2/15/1986	3:00:00	29.124	8.2517
158	2/18/1980	6:00:00	28.816	8.0851
159	1/15/1978	2:00:00	28.762	8.0560
160	2/23/2004	17:00:00	28.754	8.0517
161	1/7/1993	0:00:00	28.670	8.0064
162	2/27/1983	18:00:00	28.641	7.9908
163	3/11/2006	1:00:00	28.591	7.9639
164	1/16/1993	10:00:00	28.455	7.8908
165	1/11/1980	12:00:00	28.306	7.8109
166	1/11/1980	9:00:00	28.201	7.7548
167	2/26/1983	15:00:00	28.059	7.6789
168	11/12/2003	6:00:00	27.996	7.6453
169	12/23/1982	1:00:00	27.993	7.6437
170	3/5/2005	1:00:00	27.950	7.6208
171	3/12/1978	0:00:00	27.897	7.5925
172	3/1/1991	10:00:00	27.473	7.3675
173	12/7/1992	17:00:00	27.457	7.3591
174	12/18/1984	16:00:00	27.356	7.3057
175	3/1/1991	8:00:00	27.344	7.2994
176	2/11/2005	16:00:00	27.146	7.1950
177	3/5/1995	21:00:00	27.086	7.1634
178	3/5/1995	22:00:00	27.073	7.1566
179	3/2/1992	15:00:00	27.057	7.1482
180	2/1/1996	4:00:00	26.997	7.1167
181	1/29/1980	19:00:00	26.913	7.0726
182	2/7/1976	4:00:00	26.817	7.0223
183	1/12/1997	17:00:00	26.469	6.8407
184	3/1/1978	9:00:00	26.436	6.8235
185	2/8/1976	19:00:00	26.400	6.8048
186	3/1/1978	11:00:00	26.385	6.7970
187	1/5/1974	2:00:00	26.372	6.7902
188	3/6/1980	5:00:00	26.286	6.7455
189	3/1/1978	8:00:00	26.267	6.7357
190	2/14/1980	17:00:00	25.904	6.5480
191	1/5/1974	1:00:00	25.822	6.5057
192	11/11/1985	11:00:00	25.797	6.4929
193	11/20/1983	12:00:00	25.772	6.4800

143	3/3/1983	7:00:00	15.278	1.731
144	3/1/1978	11:00:00	15.155	1.686
145	1/16/1993	10:00:00	15.040	1.644
146	2/8/1983	7:00:00	15.025	1.638
147	12/6/1986	18:00:00	14.947	1.610
148	3/1/1978	9:00:00	14.927	1.603
149	1/11/1980	9:00:00	14.856	1.577
150	3/12/1978	2:00:00	14.848	1.574
151	1/15/1978	2:00:00	14.763	1.544
152	3/12/1978	1:00:00	14.754	1.540
153	10/20/2004	17:00:00	14.547	1.467
154	1/31/1979	10:00:00	14.451	1.433
155	11/22/1996	3:00:00	14.447	1.432
156	3/1/1978	8:00:00	14.395	1.413
157	1/18/1993	14:00:00	14.382	1.409
158	1/7/1993	0:00:00	14.266	1.368
159	3/5/1995	13:00:00	14.116	1.317
160	3/15/1986	23:00:00	14.099	1.311
161	3/28/1979	21:00:00	13.817	1.215
162	1/31/1979	9:00:00	13.806	1.212
163	2/8/1976	19:00:00	13.788	1.206
164	3/5/1995	12:00:00	13.780	1.203
165	1/5/1974	2:00:00	13.727	1.185
166	4/5/2006	7:00:00	13.658	1.163
167	3/12/1978	0:00:00	13.607	1.146
168	3/3/1983	9:00:00	13.515	1.116
169	3/1/1978	7:00:00	13.419	1.084
170	2/1/1996	4:00:00	13.412	1.082
171	8/17/1977	4:00:00	13.289	1.042
172	11/25/1985	7:00:00	13.284	1.041
173	1/5/1974	1:00:00	13.172	1.005
174	2/21/1980	5:00:00	13.157	1.000
175	10/20/1979	16:00:00	13.114	0.987
176	2/14/2001	17:00:00	12.928	0.929
177	3/1/1991	11:00:00	12.756	0.876
178	1/5/1974	0:00:00	12.742	0.871
179	10/20/1979	15:00:00	12.735	0.869
180	8/17/1977	2:00:00	12.431	0.778
181	2/9/1976	3:00:00	12.361	0.758
182	2/8/1983	6:00:00	12.352	0.755
183	1/29/1983	1:00:00	12.185	0.707
184	2/8/1994	8:00:00	12.175	0.704
185	1/31/1979	7:00:00	12.158	0.699
186	3/3/1983	8:00:00	12.010	0.658
187	1/9/2005	5:00:00	11.959	0.643
188	3/5/2005	1:00:00	11.953	0.642
189	3/5/2005	0:00:00	11.827	0.607
190	2/8/1994	7:00:00	11.822	0.606
191	1/31/1979	17:00:00	11.788	0.596
192	12/18/1984	16:00:00	11.766	0.590
193	3/1/1991	6:00:00	11.555	0.534

194	1/31/1979	10:00:00	25.753	6.4702
195	2/28/2006	0:00:00	25.709	6.4476
196	2/8/1994	8:00:00	25.584	6.3835
197	3/28/1979	21:00:00	25.536	6.3589
198	3/1/1978	7:00:00	25.528	6.3548
199	2/9/1981	2:00:00	25.474	6.3271
200	3/5/1995	13:00:00	25.320	6.2485
201	1/31/1979	9:00:00	25.316	6.2464
202	2/19/2007	13:00:00	25.146	6.1598
203	1/5/1974	0:00:00	25.024	6.0979
204	3/13/1996	9:00:00	25.015	6.0933
205	1/10/1995	20:00:00	24.901	6.0355
206	2/19/1993	17:00:00	24.859	6.0143
207	12/28/2004	19:00:00	24.857	6.0133
208	3/6/1980	10:00:00	24.709	5.9385
209	3/5/1995	12:00:00	24.645	5.9062
210	10/14/2006	0:00:00	24.495	5.8308
211	10/10/1986	4:00:00	24.191	5.6785
212	12/4/1987	22:00:00	24.146	5.6561
213	2/13/1978	13:00:00	23.909	5.5381
214	1/4/2005	4:00:00	23.484	5.3281
215	2/5/1978	15:00:00	23.250	5.2132
216	2/14/1995	11:00:00	23.132	5.1555
217	1/31/1979	7:00:00	22.833	5.0100
218	12/6/1986	18:00:00	22.531	4.8640
219	12/7/1992	14:00:00	22.103	4.6589
220	2/9/1976	3:00:00	21.959	4.5903
221	2/13/1992	6:00:00	21.953	4.5875
222	11/11/1978	22:00:00	21.594	4.4177
223	8/17/1977	4:00:00	21.573	4.4078
224	4/28/2005	23:00:00	21.389	4.3214
225	3/24/1998	17:00:00	21.350	4.3031
226	1/27/1983	11:00:00	21.339	4.2980
227	10/20/1979	16:00:00	21.227	4.2457
228	11/25/1985	1:00:00	21.086	4.1800
229	1/29/1983	2:00:00	20.806	4.0504
230	3/16/1986	22:00:00	20.803	4.0490
231	2/7/1976	5:00:00	20.709	4.0057
232	1/4/1974	23:00:00	20.494	3.9072
233	3/11/2006	3:00:00	20.170	3.7597
234	2/14/1995	10:00:00	20.022	3.6929
235	1/4/1974	20:00:00	20.019	3.6915
236	3/22/2005	23:00:00	19.967	3.6681
237	12/18/1984	19:00:00	19.955	3.6627
238	4/5/2006	2:00:00	19.946	3.6586
239	4/20/1988	9:00:00	19.898	3.6371
240	12/11/1984	11:00:00	19.801	3.5936
241	1/27/2008	3:00:00	19.729	3.5614
242	10/20/1979	15:00:00	19.710	3.5529
243	11/20/1983	11:00:00	19.688	3.5431
244	1/25/1995	23:00:00	19.625	3.5150

194	10/19/2004	19:00:00	11.539	0.530
195	2/21/1980	6:00:00	11.257	0.458
196	2/23/2004	17:00:00	11.197	0.443
197	2/27/1983	18:00:00	11.115	0.422
198	2/13/1978	13:00:00	11.059	0.409
199	3/16/1986	22:00:00	11.054	0.408
200	3/18/1983	23:00:00	11.018	0.399
201	12/18/1984	19:00:00	10.944	0.381
202	1/27/2008	3:00:00	10.931	0.378
203	2/21/1980	1:00:00	10.816	0.351
204	1/29/1983	2:00:00	10.772	0.341
205	2/19/1993	17:00:00	10.766	0.340
206	3/3/1983	10:00:00	10.671	0.318
207	3/1/1991	5:00:00	10.576	0.297
208	10/20/2004	18:00:00	10.527	0.287
209	12/18/1984	17:00:00	10.459	0.272
210	12/11/1984	11:00:00	10.378	0.255
211	10/19/2004	18:00:00	10.317	0.242
212	1/25/1995	23:00:00	10.208	0.220
213	4/23/1980	4:00:00	9.981	0.177
214	3/5/1995	15:00:00	9.916	0.165
215	1/7/2008	3:00:00	9.912	0.164
216	3/11/1995	4:00:00	9.893	0.160
217	2/7/1976	5:00:00	9.825	0.148
218	1/5/1992	16:00:00	9.746	0.135
219	1/8/1993	0:00:00	9.674	0.123
220	1/29/1980	23:00:00	9.629	0.115
221	12/28/2004	22:00:00	9.619	0.114
222	1/4/1974	23:00:00	9.576	0.107
223	11/12/2003	7:00:00	9.536	0.100
224	10/20/1979	14:00:00	9.459	0.089
225	5/1/1978	5:00:00	9.450	0.087
226	4/4/2006	23:00:00	9.432	0.085
227	2/21/1980	3:00:00	9.299	0.066
228	2/1/1996	3:00:00	9.271	0.062
229	2/21/1980	2:00:00	9.268	0.062
230	2/7/1976	4:00:00	9.249	0.059
231	12/7/1992	17:00:00	9.232	0.057
232	1/11/2005	6:00:00	9.212	0.055
233	1/2/2006	16:00:00	9.146	0.046
234	1/31/1979	18:00:00	9.129	0.044
235	5/8/1977	23:00:00	9.119	0.043
236	3/2/1992	15:00:00	9.025	0.033
237	10/27/2004	15:00:00	9.004	0.030
238	12/25/2003	20:00:00	8.976	0.027
239	1/11/2005	7:00:00	8.858	0.016
240	3/26/1991	3:00:00	8.856	0.016
241	2/14/1980	17:00:00	8.848	0.016
242	2/21/1980	7:00:00	8.843	0.015
243	1/29/1980	13:00:00	8.834	0.014
244	3/1/1991	12:00:00	8.827	0.014

245	9/25/1986	6:00:00	19.624	3.5145
246	2/5/1976	2:00:00	19.527	3.4714
247	1/16/1993	9:00:00	19.504	3.4612
248	2/27/1983	6:00:00	19.449	3.4368
249	2/19/2007	12:00:00	19.421	3.4244
250	1/15/1993	16:00:00	19.339	3.3882
251	1/15/1993	14:00:00	19.329	3.3838
252	3/19/1981	23:00:00	19.232	3.3410
253	1/5/1992	16:00:00	19.229	3.3397
254	12/18/1984	17:00:00	19.210	3.3314
255	12/17/2002	17:00:00	19.204	3.3287
256	1/8/1993	0:00:00	19.191	3.3230
257	3/2/1992	17:00:00	19.168	3.3129
258	3/11/1975	14:00:00	19.047	3.2599
259	8/17/1977	2:00:00	19.030	3.2525
260	2/23/1998	17:00:00	19.030	3.2525
261	2/26/2004	17:00:00	19.030	3.2525
262	11/25/1983	0:00:00	19.006	3.2420
263	2/13/1978	0:00:00	18.990	3.2351
264	1/8/1974	3:00:00	18.952	3.2185
265	11/12/2003	9:00:00	18.854	3.1759
266	1/7/1974	18:00:00	18.814	3.1585
267	3/5/1978	8:00:00	18.798	3.1516
268	2/23/2005	1:00:00	18.753	3.1321
269	1/11/2001	8:00:00	18.642	3.0842
270	11/24/1978	13:00:00	18.524	3.0334
271	3/1/1991	11:00:00	18.413	2.9859
272	2/21/1980	5:00:00	18.400	2.9803
273	12/4/1974	11:00:00	18.393	2.9773
274	12/29/1976	14:00:00	18.343	2.9560
275	11/8/2004	1:00:00	18.321	2.9466
276	12/27/1984	19:00:00	18.310	2.9419
277	12/9/1996	19:00:00	18.274	2.9266
278	2/21/1980	1:00:00	18.263	2.9219
279	1/7/2008	3:00:00	18.184	2.8884
280	1/29/1980	5:00:00	18.151	2.8744
281	10/19/2004	18:00:00	18.146	2.8723
282	2/20/1980	18:00:00	18.001	2.8111
283	3/1/1991	6:00:00	17.941	2.7859
284	2/10/1978	4:00:00	17.836	2.7419
285	11/25/1985	4:00:00	17.820	2.7352
286	2/1/1996	3:00:00	17.806	2.7294
287	1/15/1978	1:00:00	17.777	2.7173
288	2/7/1978	19:00:00	17.765	2.7123
289	3/26/1991	3:00:00	17.692	2.6819
290	3/11/1986	2:00:00	17.503	2.6036
291	2/18/1980	4:00:00	17.472	2.5908
292	1/31/1996	22:00:00	17.423	2.5706
293	1/29/1980	23:00:00	17.417	2.5682
294	4/20/1983	12:00:00	17.345	2.5386

245	3/11/2006	1:00:00	8.822	0.013
246	2/9/1981	2:00:00	8.688	0.004
247	1/7/1993	16:00:00	8.658	0.003
248	2/19/2007	13:00:00	8.640	0.002
249	2/23/2005	1:00:00	8.634	0.002
250	2/20/1980	18:00:00	8.630	0.002
251	3/13/1996	9:00:00	8.612	0.001
252	1/7/1993	5:00:00	8.599	0.001
253	1/16/1993	9:00:00	8.582	0.000

ΣW_{POST} : 1295

295	1/28/1980	22:00:00	17.332	2.5333
296	12/19/1978	9:00:00	17.303	2.5214
297	2/22/1998	17:00:00	17.299	2.5198
298	1/27/1983	13:00:00	17.297	2.5189
299	3/24/1983	4:00:00	17.237	2.4944
300	10/19/2004	19:00:00	17.170	2.4671
301	3/16/1986	17:00:00	17.123	2.4480
302	1/16/1978	23:00:00	17.113	2.4440
303	1/29/1980	13:00:00	17.110	2.4428
304	3/2/1978	10:00:00	17.075	2.4286
305	3/5/1978	5:00:00	17.054	2.4201
306	11/24/1978	7:00:00	17.054	2.4201
307	1/4/1987	19:00:00	17.026	2.4087
308	12/7/1992	13:00:00	17.017	2.4051
309	1/18/1979	18:00:00	16.996	2.3966
310	3/1/1991	5:00:00	16.980	2.3902
311	4/20/1983	11:00:00	16.949	2.3777
312	11/4/1987	23:00:00	16.901	2.3583
313	1/6/1979	3:00:00	16.849	2.3375
314	1/3/2005	10:00:00	16.754	2.2994
315	3/11/2006	13:00:00	16.729	2.2895
316	2/19/2007	16:00:00	16.656	2.2604
317	1/11/1980	1:00:00	16.655	2.2600
318	3/2/1981	2:00:00	16.534	2.2120
319	3/5/1995	15:00:00	16.509	2.2022
320	2/7/1998	16:00:00	16.423	2.1683
321	2/12/2005	16:00:00	16.408	2.1624
322	1/19/1980	3:00:00	16.361	2.1439
323	1/7/1993	16:00:00	16.355	2.1416
324	3/5/1978	16:00:00	16.326	2.1302
325	1/14/1990	4:00:00	16.299	2.1197
326	1/29/1980	9:00:00	16.237	2.0955
327	12/18/1978	23:00:00	16.202	2.0819
328	2/12/2005	8:00:00	16.176	2.0718
329	2/11/1978	12:00:00	16.028	2.0145
330	12/20/2002	17:00:00	15.985	1.9979
331	1/28/2005	17:00:00	15.892	1.9623
332	2/22/2008	7:00:00	15.871	1.9542
333	12/5/2004	15:00:00	15.821	1.9351
334	2/8/1993	21:00:00	15.748	1.9074
335	11/23/1973	3:00:00	15.714	1.8945
336	2/27/1996	23:00:00	15.667	1.8767
337	12/3/1983	17:00:00	15.644	1.8680
338	3/11/1995	7:00:00	15.634	1.8642
339	3/24/1994	23:00:00	15.571	1.8405
340	1/12/1993	16:00:00	15.552	1.8333
341	3/10/1986	21:00:00	15.436	1.7899
342	1/29/1980	4:00:00	15.434	1.7891
343	2/6/1976	7:00:00	15.431	1.7880
344	3/11/1978	23:00:00	15.380	1.7690
345	1/11/2005	2:00:00	15.159	1.6873

346	3/10/1980	18:00:00	15.061	1.6514
347	4/7/1978	5:00:00	15.018	1.6357
348	1/6/1992	12:00:00	14.964	1.6161
349	3/2/1983	16:00:00	14.961	1.6150
350	11/4/1987	19:00:00	14.904	1.5944
351	2/5/1978	18:00:00	14.888	1.5886
352	12/25/2003	20:00:00	14.820	1.5641
353	12/29/2004	6:00:00	14.809	1.5601
354	4/2/1974	6:00:00	14.758	1.5418
355	1/7/1993	8:00:00	14.758	1.5418
356	1/15/1993	19:00:00	14.727	1.5307
357	1/12/1993	19:00:00	14.570	1.4749
358	1/29/1980	2:00:00	14.565	1.4731
359	1/9/2005	23:00:00	14.451	1.4330
360	1/4/1974	21:00:00	14.429	1.4252
361	11/24/1978	3:00:00	14.355	1.3994
362	1/13/1993	21:00:00	14.291	1.3771
363	2/22/2005	22:00:00	14.263	1.3674
364	2/14/1995	12:00:00	14.250	1.3629
365	3/1/1978	6:00:00	14.235	1.3577
366	11/23/1973	0:00:00	14.047	1.2932
367	4/14/1998	17:00:00	14.018	1.2833
368	1/6/1993	22:00:00	13.825	1.2181
369	3/1/1983	15:00:00	13.767	1.1987
370	1/5/1978	22:00:00	13.758	1.1957
371	12/17/1978	23:00:00	13.740	1.1897
372	12/11/1984	10:00:00	13.679	1.1695
373	4/5/2006	1:00:00	13.647	1.1589
374	2/20/1980	5:00:00	13.594	1.1414
375	12/27/1984	4:00:00	13.518	1.1165
376	1/9/1978	19:00:00	13.497	1.1096
377	11/24/1984	22:00:00	13.493	1.1083
378	2/21/2005	7:00:00	13.429	1.0875
379	1/14/1990	5:00:00	13.293	1.0436
380	12/7/1992	15:00:00	13.134	0.9930
381	2/11/2003	17:00:00	13.099	0.9820
382	10/27/2004	15:00:00	13.057	0.9688
383	2/28/2006	2:00:00	12.984	0.9460
384	12/6/1998	7:00:00	12.929	0.9289
385	1/26/1997	3:00:00	12.865	0.9091
386	1/11/2001	7:00:00	12.709	0.8614
387	1/11/2005	6:00:00	12.687	0.8548
388	1/10/1995	21:00:00	12.653	0.8445
389	2/2/1998	16:00:00	12.552	0.8142
390	3/5/1981	18:00:00	12.472	0.7905
391	1/6/1993	14:00:00	12.429	0.7778
392	3/12/1995	0:00:00	12.250	0.7257
393	1/31/1996	21:00:00	12.169	0.7025
394	1/11/2005	7:00:00	12.087	0.6792
395	2/7/1978	18:00:00	12.077	0.6764
396	11/29/1985	15:00:00	12.015	0.6589

397	1/7/1993	5:00:00	11.967	0.6456
398	10/31/1987	18:00:00	11.926	0.6342
399	12/19/1978	7:00:00	11.872	0.6193
400	1/14/1978	19:00:00	11.844	0.6116
401	2/5/1976	17:00:00	11.833	0.6086
402	2/12/2005	11:00:00	11.803	0.6004
403	2/5/1976	3:00:00	11.716	0.5769
404	3/16/1986	23:00:00	11.710	0.5753
405	1/16/1993	12:00:00	11.596	0.5449
406	1/7/1993	6:00:00	11.562	0.5359
407	2/15/1986	9:00:00	11.538	0.5296
408	1/7/2008	5:00:00	11.432	0.5021
409	2/20/1993	7:00:00	11.425	0.5003
410	9/25/1986	7:00:00	11.307	0.4702
411	1/5/1992	20:00:00	11.300	0.4684
412	1/18/1979	8:00:00	11.189	0.4407
413	1/5/1992	19:00:00	11.167	0.4352
414	1/16/1993	13:00:00	11.104	0.4198
415	1/5/1992	15:00:00	11.078	0.4134
416	1/5/1992	17:00:00	11.067	0.4108
417	5/2/1980	0:00:00	11.021	0.3997
418	1/5/1992	18:00:00	11.016	0.3985
419	11/25/1985	10:00:00	10.992	0.3927
420	3/1/1981	5:00:00	10.925	0.3768
421	3/6/1980	8:00:00	10.898	0.3704
422	1/27/1983	9:00:00	10.893	0.3693
423	3/2/1992	10:00:00	10.876	0.3653
424	2/8/1976	17:00:00	10.834	0.3555
425	1/6/1979	4:00:00	10.774	0.3417
426	11/21/2004	8:00:00	10.736	0.3330
427	1/2/2006	16:00:00	10.735	0.3328
428	3/6/1975	12:00:00	10.733	0.3324
429	1/12/2001	13:00:00	10.720	0.3294
430	2/2/1983	15:00:00	10.711	0.3274
431	11/25/1985	9:00:00	10.704	0.3258
432	2/28/2006	8:00:00	10.649	0.3135
433	1/25/1995	21:00:00	10.628	0.3088
434	2/7/1998	15:00:00	10.587	0.2997
435	12/4/1974	13:00:00	10.570	0.2960
436	3/2/1983	22:00:00	10.467	0.2738
437	12/17/1987	7:00:00	10.463	0.2729
438	3/1/1991	2:00:00	10.457	0.2716
439	3/3/1983	5:00:00	10.442	0.2684
440	12/30/1981	15:00:00	10.436	0.2672
441	1/7/1993	2:00:00	10.411	0.2619
442	3/3/1983	9:00:00	10.339	0.2469
443	9/3/1976	17:00:00	10.271	0.2329
444	12/11/1984	8:00:00	10.222	0.2230
445	2/28/1983	2:00:00	10.191	0.2169
446	3/3/1983	3:00:00	10.135	0.2059
447	2/13/1998	16:00:00	10.087	0.1966

448	1/7/2005	14:00:00	10.076	0.1944
449	1/10/2005	1:00:00	10.035	0.1866
450	1/13/1993	23:00:00	9.938	0.1686
451	3/12/1986	14:00:00	9.923	0.1658
452	3/12/1986	13:00:00	9.897	0.1611
453	10/19/2004	14:00:00	9.886	0.1591
454	1/7/1993	22:00:00	9.871	0.1565
455	2/1/1996	5:00:00	9.840	0.1509
456	10/20/2004	17:00:00	9.836	0.1502
457	1/9/2005	9:00:00	9.829	0.1490
458	1/12/1995	14:00:00	9.801	0.1441
459	3/8/1975	13:00:00	9.773	0.1393
460	1/7/1993	20:00:00	9.696	0.1262
461	3/25/1994	0:00:00	9.670	0.1219
462	2/22/2005	21:00:00	9.632	0.1157
463	12/29/2004	3:00:00	9.628	0.1150
464	2/7/1998	18:00:00	9.620	0.1137
465	2/22/2005	20:00:00	9.548	0.1023
466	3/1/1991	12:00:00	9.519	0.0978
467	2/12/2005	7:00:00	9.512	0.0967
468	1/15/1993	13:00:00	9.493	0.0938
469	10/20/1979	14:00:00	9.431	0.0846
470	11/25/1985	5:00:00	9.404	0.0807
471	4/29/1980	1:00:00	9.378	0.0769
472	1/6/1993	23:00:00	9.368	0.0755
473	4/20/1983	10:00:00	9.363	0.0748
474	1/10/1980	12:00:00	9.311	0.0676
475	11/11/1985	13:00:00	9.299	0.0660
476	3/5/2005	2:00:00	9.292	0.0650
477	3/12/1986	12:00:00	9.279	0.0633
478	1/26/1997	9:00:00	9.203	0.0534
479	11/24/1984	23:00:00	9.191	0.0519
480	1/13/1993	1:00:00	9.164	0.0486
481	1/14/1993	1:00:00	9.132	0.0447
482	12/7/1992	20:00:00	9.042	0.0344
483	4/26/1994	18:00:00	9.028	0.0329
484	3/16/1986	0:00:00	8.902	0.0203
485	1/7/1993	11:00:00	8.884	0.0187
486	1/26/1997	8:00:00	8.846	0.0154
487	5/8/1977	23:00:00	8.846	0.0154
488	11/1/1974	23:00:00	8.839	0.0148
489	1/12/1993	20:00:00	8.752	0.0082
490	2/21/2005	6:00:00	8.730	0.0068
491	3/2/1983	2:00:00	8.688	0.0043
492	1/17/1993	5:00:00	8.621	0.0012

ΣW_{PRE} : 5045

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	5045
(b) ΣW_{POST} :	1295
(c) S_{RUSLE} :	1.577
(d) S_{NHD} :	N/A

E_p :	0.257	[(b)/(a)]
S_p :	1.577	[(c)]

E_p / S_p :	0.2
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 1B - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		8.571 cfs		
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	198.404	757.807
2	2/20/1980	19:00:00	190.273	712.791
3	10/22/1976	17:00:00	157.629	539.734
4	9/10/1976	10:00:00	138.859	446.313
5	10/31/1987	19:00:00	127.957	394.317
6	2/7/1998	17:00:00	127.314	391.306
7	10/22/1976	16:00:00	122.524	369.069
8	1/9/2005	21:00:00	121.811	365.790
9	1/29/1980	7:00:00	115.633	337.712
10	2/2/1998	17:00:00	113.403	327.7292
11	2/6/1992	20:00:00	112.983	325.8582
12	10/18/2004	13:00:00	111.594	319.6917
13	10/20/2004	12:00:00	109.297	309.5655
14	2/13/1998	17:00:00	106.245	296.2509
15	2/19/1993	16:00:00	103.849	285.9122
16	1/31/1979	14:00:00	96.159	253.4305
17	3/1/1983	16:00:00	94.807	247.8336
18	1/9/2005	20:00:00	93.737	243.4289
19	8/17/1977	3:00:00	89.151	224.8037
20	3/2/1983	18:00:00	85.712	211.1134
21	2/21/2005	14:00:00	83.310	201.6965
22	2/15/1992	15:00:00	82.180	197.3086
23	3/6/1975	11:00:00	81.021	192.8365
24	4/18/1995	12:00:00	78.346	182.6269
25	3/3/1983	1:00:00	75.849	173.2406
26	2/20/1980	20:00:00	75.540	172.0889
27	10/27/2004	5:00:00	74.580	168.5249
28	2/18/1980	5:00:00	74.233	167.2419
29	3/4/1978	18:00:00	74.156	166.9576
30	2/16/1980	20:00:00	73.975	166.2898
31	1/31/1979	16:00:00	73.567	164.7873
32	1/31/1979	13:00:00	72.914	162.3907
33	1/18/1993	6:00:00	72.253	159.9750
34	12/4/1974	12:00:00	71.948	158.8639
35	2/12/2003	17:00:00	70.355	153.0968
36	1/31/1979	8:00:00	70.059	152.0319
37	2/25/2003	17:00:00	69.057	148.4432
38	1/13/1993	22:00:00	68.899	147.8796
39	1/9/1980	13:00:00	68.456	146.3026
40	10/10/1986	0:00:00	68.450	146.2813

Work Calculations, Post-Development Conditions				
Low flow Threshold:		8.571 cfs		
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	2/20/1980	19:00:00	90.420	229.916
2	1/4/1978	21:00:00	87.967	220.063
3	10/22/1976	17:00:00	72.431	160.625
4	9/10/1976	10:00:00	65.752	136.784
5	2/7/1998	17:00:00	59.408	115.201
6	10/31/1987	19:00:00	58.986	113.804
7	1/9/2005	21:00:00	57.800	109.905
8	1/29/1980	7:00:00	54.818	100.281
9	2/2/1998	17:00:00	53.569	96.329
10	10/18/2004	13:00:00	53.412	95.835
11	10/20/2004	12:00:00	53.321	95.550
12	10/22/1976	16:00:00	52.268	92.262
13	2/13/1998	17:00:00	50.388	86.479
14	2/6/1992	20:00:00	50.378	86.448
15	1/31/1979	14:00:00	47.879	78.938
16	2/19/1993	16:00:00	45.815	72.891
17	3/1/1983	16:00:00	44.389	68.800
18	8/17/1977	3:00:00	44.267	68.453
19	1/9/2005	20:00:00	44.029	67.778
20	3/2/1983	18:00:00	41.919	61.886
21	2/21/2005	14:00:00	40.334	57.568
22	2/20/1980	20:00:00	38.650	53.088
23	1/31/1979	16:00:00	37.902	51.134
24	3/3/1983	1:00:00	37.844	50.983
25	1/31/1979	13:00:00	36.842	48.404
26	2/15/1992	15:00:00	36.577	47.729
27	3/4/1978	18:00:00	36.053	46.402
28	2/18/1980	5:00:00	35.924	46.078
29	4/18/1995	12:00:00	35.745	45.628
30	2/16/1980	20:00:00	35.475	44.953
31	3/3/1983	6:00:00	34.506	42.556
32	1/18/1993	6:00:00	34.431	42.372
33	10/20/2004	16:00:00	33.954	41.208
34	10/28/1974	12:00:00	33.740	40.690
35	1/31/1979	8:00:00	33.702	40.598
36	10/20/2004	15:00:00	33.656	40.487
37	2/25/2003	17:00:00	33.504	40.120
38	2/12/2003	17:00:00	33.238	39.481
39	1/9/1980	13:00:00	33.129	39.220
40	10/20/2004	13:00:00	33.082	39.108

41	3/3/1983	6:00:00	66.967	141.0380
42	10/28/1974	12:00:00	65.883	137.2406
43	10/20/2004	16:00:00	63.940	130.5098
44	10/20/2004	15:00:00	63.853	130.2108
45	10/20/2004	13:00:00	63.751	129.8604
46	10/28/1974	11:00:00	63.482	128.9376
47	2/16/1998	17:00:00	61.628	122.6304
48	10/19/2004	8:00:00	60.292	118.1430
49	2/15/1986	4:00:00	59.751	116.3399
50	3/21/1983	5:00:00	57.998	110.5533
51	1/11/2005	4:00:00	57.730	109.6763
52	2/23/2005	4:00:00	55.080	101.1166
53	1/25/1995	19:00:00	55.016	100.9124
54	3/16/1986	21:00:00	54.957	100.7243
55	3/5/1995	20:00:00	54.340	98.7633
56	10/27/2004	14:00:00	53.876	97.2960
57	3/5/1995	17:00:00	53.850	97.2140
58	1/27/2008	2:00:00	53.130	94.9508
59	12/29/2004	4:00:00	52.500	92.9836
60	2/10/1978	6:00:00	52.487	92.9431
61	2/10/1978	5:00:00	52.317	92.4144
62	1/15/1978	4:00:00	52.194	92.0324
63	12/28/1977	8:00:00	51.816	90.8616
64	12/25/2003	19:00:00	51.690	90.4723
65	2/21/2005	11:00:00	51.645	90.3334
66	1/11/1980	13:00:00	51.581	90.1359
67	2/15/1986	6:00:00	51.457	89.7537
68	10/27/2004	8:00:00	51.157	88.8310
69	2/9/1976	1:00:00	51.042	88.4780
70	2/8/1976	22:00:00	51.037	88.4627
71	2/8/1976	21:00:00	50.821	87.8010
72	1/14/1978	20:00:00	50.297	86.2017
73	2/18/1980	9:00:00	50.146	85.7425
74	1/29/1980	20:00:00	49.861	84.8778
75	2/13/1978	11:00:00	49.558	83.9614
76	2/19/1980	22:00:00	49.517	83.8376
77	1/31/1979	12:00:00	49.465	83.6807
78	12/18/1988	14:00:00	49.321	83.2466
79	3/1/1983	17:00:00	49.052	82.4376
80	3/2/1983	19:00:00	49.043	82.4106
81	1/10/1978	8:00:00	48.872	81.8975
82	1/8/1998	17:00:00	48.734	81.4842
83	1/11/2005	5:00:00	48.697	81.3735
84	2/19/1980	16:00:00	48.547	80.9252
85	3/1/1981	14:00:00	48.486	80.7430
86	2/15/1986	5:00:00	48.435	80.5909
87	1/11/1980	7:00:00	48.406	80.5044
88	3/2/1983	17:00:00	48.383	80.4358
89	2/16/1980	19:00:00	48.067	79.4954
90	2/27/1978	22:00:00	48.038	79.4093
91	10/27/2004	7:00:00	47.853	78.8605

41	3/6/1975	11:00:00	32.356	37.386
42	10/28/1974	11:00:00	32.208	37.038
43	12/4/1974	12:00:00	32.172	36.953
44	1/13/1993	22:00:00	31.275	34.867
45	10/19/2004	8:00:00	30.169	32.349
46	3/5/1995	20:00:00	29.159	30.103
47	1/11/2005	4:00:00	29.073	29.914
48	2/16/1998	17:00:00	28.811	29.341
49	10/10/1986	0:00:00	28.415	28.481
50	3/5/1995	17:00:00	28.087	27.776
51	2/23/2005	4:00:00	27.660	26.865
52	1/11/1980	13:00:00	26.812	25.087
53	1/15/1978	4:00:00	26.741	24.940
54	2/9/1976	1:00:00	26.656	24.765
55	1/29/1980	20:00:00	26.427	24.293
56	2/8/1976	22:00:00	26.013	23.448
57	10/27/2004	14:00:00	25.917	23.254
58	1/25/1995	19:00:00	25.906	23.232
59	3/16/1986	21:00:00	25.737	22.891
60	1/31/1979	12:00:00	25.664	22.744
61	3/2/1983	19:00:00	25.632	22.680
62	12/29/2004	4:00:00	25.598	22.611
63	2/10/1978	6:00:00	25.562	22.539
64	2/18/1980	9:00:00	25.470	22.355
65	2/8/1976	21:00:00	25.440	22.295
66	10/27/2004	5:00:00	25.422	22.259
67	1/11/2005	5:00:00	25.233	21.883
68	10/20/2004	14:00:00	25.029	21.480
69	1/14/1978	20:00:00	24.998	21.419
70	1/27/2008	2:00:00	24.973	21.370
71	2/10/1978	5:00:00	24.691	20.817
72	2/15/1986	4:00:00	24.665	20.766
73	3/5/1995	18:00:00	24.397	20.246
74	10/27/2004	8:00:00	24.368	20.189
75	2/15/1986	6:00:00	24.306	20.070
76	2/19/1980	22:00:00	24.153	19.775
77	12/25/2003	19:00:00	24.105	19.683
78	3/2/1983	17:00:00	23.946	19.379
79	2/21/2005	11:00:00	23.846	19.189
80	3/1/1983	17:00:00	23.784	19.071
81	10/28/1974	13:00:00	23.723	18.956
82	2/28/1978	20:00:00	23.603	18.729
83	3/21/1983	5:00:00	23.486	18.509
84	2/13/1978	11:00:00	23.304	18.168
85	1/10/1978	8:00:00	23.157	17.894
86	1/11/1980	7:00:00	23.135	17.854
87	5/9/1977	0:00:00	22.961	17.532
88	10/27/2004	10:00:00	22.943	17.498
89	1/29/1980	18:00:00	22.844	17.316
90	2/27/1983	19:00:00	22.533	16.748
91	12/25/1988	1:00:00	22.520	16.724

92	2/27/1983	19:00:00	47.637	78.2211
93	2/28/1978	20:00:00	47.378	77.4566
94	2/21/2005	13:00:00	46.365	74.4881
95	12/25/1988	1:00:00	45.960	73.3112
96	1/29/1980	18:00:00	45.915	73.1807
97	10/27/2004	10:00:00	45.638	72.3794
98	10/20/2004	14:00:00	45.464	71.8775
99	3/27/1998	17:00:00	45.302	71.4111
100	3/5/1995	18:00:00	44.894	70.2405
101	12/29/2004	2:00:00	44.552	69.2638
102	1/12/2001	12:00:00	44.514	69.1555
103	1/16/1979	2:00:00	44.368	68.7400
104	10/28/1974	13:00:00	44.198	68.2572
105	1/7/2008	1:00:00	43.836	67.2325
106	12/28/1977	13:00:00	43.651	66.7106
107	10/27/2004	6:00:00	42.670	63.9642
108	4/15/1976	21:00:00	42.490	63.4641
109	5/9/1977	0:00:00	42.226	62.7327
110	3/16/1986	11:00:00	42.097	62.3763
111	4/23/1980	4:00:00	40.878	59.0392
112	9/10/1976	9:00:00	40.403	57.7542
113	1/6/2008	7:00:00	39.730	55.9484
114	2/1/1996	2:00:00	38.784	53.4401
115	12/25/1988	0:00:00	38.754	53.3612
116	1/31/1979	6:00:00	38.643	53.0693
117	1/17/1990	3:00:00	38.193	51.8912
118	11/22/1996	3:00:00	38.177	51.8495
119	11/25/1985	7:00:00	37.841	50.9754
120	12/18/1984	18:00:00	37.797	50.8613
121	12/18/1978	18:00:00	37.274	49.5109
122	2/21/2005	12:00:00	36.983	48.7644
123	3/5/2005	0:00:00	36.863	48.4576
124	3/1/1991	9:00:00	36.503	47.5408
125	3/1/1991	7:00:00	36.317	47.0693
126	11/30/2007	23:00:00	36.172	46.7027
127	3/5/1995	19:00:00	35.884	45.9772
128	4/5/2006	7:00:00	35.733	45.5983
129	3/5/1995	16:00:00	35.216	44.3082
130	5/1/1978	5:00:00	35.006	43.7875
131	10/27/2004	9:00:00	34.997	43.7652
132	10/19/2004	16:00:00	34.807	43.2959
133	3/15/1986	23:00:00	33.630	40.4238
134	2/14/2001	17:00:00	32.487	37.6947
135	2/8/1994	7:00:00	32.234	37.0988
136	8/17/1977	1:00:00	31.173	34.6327
137	3/11/1995	4:00:00	31.050	34.3503
138	11/12/2003	7:00:00	31.048	34.3457
139	4/4/2006	23:00:00	31.040	34.3274
140	1/18/1993	14:00:00	30.589	33.2984
141	1/11/2005	8:00:00	30.263	32.5609
142	2/8/1983	7:00:00	29.906	31.7593

92	2/21/2005	13:00:00	22.448	16.594
93	3/1/1981	14:00:00	22.329	16.378
94	10/27/2004	7:00:00	21.952	15.703
95	12/18/1988	14:00:00	21.843	15.510
96	2/16/1980	19:00:00	21.812	15.455
97	1/8/1998	17:00:00	21.703	15.262
98	2/15/1986	5:00:00	21.578	15.042
99	1/12/2001	12:00:00	21.548	14.990
100	1/16/1979	2:00:00	21.304	14.564
101	2/27/1978	22:00:00	20.779	13.663
102	3/1/1991	9:00:00	20.682	13.498
103	3/5/1995	19:00:00	20.528	13.239
104	2/19/1980	16:00:00	20.400	13.024
105	3/1/1991	7:00:00	20.161	12.627
106	3/27/1998	17:00:00	20.153	12.613
107	9/10/1976	9:00:00	19.788	12.015
108	4/15/1976	21:00:00	19.620	11.742
109	1/6/2008	7:00:00	19.616	11.736
110	3/16/1986	11:00:00	19.125	10.952
111	12/18/1984	18:00:00	19.061	10.851
112	10/19/2004	16:00:00	19.041	10.820
113	1/7/2008	1:00:00	18.965	10.701
114	3/5/1995	16:00:00	18.960	10.693
115	12/29/2004	2:00:00	18.819	10.473
116	12/28/1977	13:00:00	18.586	10.113
117	2/21/2005	12:00:00	18.135	9.428
118	10/27/2004	6:00:00	18.030	9.271
119	8/17/1977	1:00:00	18.000	9.227
120	12/25/1988	0:00:00	17.729	8.826
121	10/27/2004	9:00:00	17.660	8.725
122	1/11/2005	8:00:00	17.187	8.043
123	1/31/1979	6:00:00	17.102	7.923
124	3/5/1995	22:00:00	17.003	7.783
125	1/17/1990	3:00:00	16.963	7.727
126	3/5/1995	21:00:00	16.943	7.699
127	2/1/1996	2:00:00	16.780	7.472
128	3/1/1991	10:00:00	16.760	7.444
129	1/15/1978	6:00:00	16.567	7.179
130	12/28/1977	8:00:00	16.403	6.956
131	1/7/1993	4:00:00	16.403	6.956
132	3/1/1991	8:00:00	16.336	6.865
133	11/30/2007	23:00:00	16.124	6.582
134	2/18/1980	6:00:00	16.069	6.509
135	1/17/1978	3:00:00	15.972	6.381
136	1/16/1993	11:00:00	15.971	6.380
137	1/7/1993	3:00:00	15.852	6.224
138	1/29/1980	19:00:00	15.797	6.153
139	1/15/1978	3:00:00	15.758	6.102
140	12/18/1978	18:00:00	15.706	6.035
141	1/11/1980	12:00:00	15.699	6.026
142	1/11/2005	3:00:00	15.596	5.894

143	1/7/1993	4:00:00	29.819	31.5649
144	1/7/1993	3:00:00	29.568	31.0062
145	1/29/1983	1:00:00	29.548	30.9618
146	12/28/2004	22:00:00	29.439	30.7203
147	1/17/1978	3:00:00	29.377	30.5832
148	2/8/1983	6:00:00	29.362	30.5501
149	3/12/1978	2:00:00	29.298	30.4088
150	1/16/1993	11:00:00	29.218	30.2325
151	1/15/1978	6:00:00	29.215	30.2259
152	1/9/2005	5:00:00	29.201	30.1951
153	3/18/1983	23:00:00	29.178	30.1445
154	1/15/1978	3:00:00	29.166	30.1181
155	3/12/1978	1:00:00	29.136	30.0521
156	1/11/2005	3:00:00	29.133	30.0455
157	2/15/1986	3:00:00	29.124	30.0258
158	2/18/1980	6:00:00	28.816	29.3516
159	1/15/1978	2:00:00	28.762	29.2339
160	2/23/2004	17:00:00	28.754	29.2164
161	1/7/1993	0:00:00	28.670	29.0337
162	2/27/1983	18:00:00	28.641	28.9707
163	3/11/2006	1:00:00	28.591	28.8622
164	1/16/1993	10:00:00	28.455	28.5676
165	1/11/1980	12:00:00	28.306	28.2461
166	1/11/1980	9:00:00	28.201	28.0202
167	2/26/1983	15:00:00	28.059	27.7156
168	11/12/2003	6:00:00	27.996	27.5808
169	12/23/1982	1:00:00	27.993	27.5744
170	3/5/2005	1:00:00	27.950	27.4825
171	3/12/1978	0:00:00	27.897	27.3694
172	3/1/1991	10:00:00	27.473	26.4700
173	12/7/1992	17:00:00	27.457	26.4362
174	12/18/1984	16:00:00	27.356	26.2235
175	3/1/1991	8:00:00	27.344	26.1983
176	2/11/2005	16:00:00	27.146	25.7830
177	3/5/1995	21:00:00	27.086	25.6576
178	3/5/1995	22:00:00	27.073	25.6304
179	3/2/1992	15:00:00	27.057	25.5970
180	2/1/1996	4:00:00	26.997	25.4719
181	1/29/1980	19:00:00	26.913	25.2970
182	2/7/1976	4:00:00	26.817	25.0977
183	1/12/1997	17:00:00	26.469	24.3793
184	3/1/1978	9:00:00	26.436	24.3116
185	2/8/1976	19:00:00	26.400	24.2377
186	3/1/1978	11:00:00	26.385	24.2070
187	1/5/1974	2:00:00	26.372	24.1803
188	3/6/1980	5:00:00	26.286	24.0043
189	3/1/1978	8:00:00	26.267	23.9655
190	2/14/1980	17:00:00	25.904	23.2275
191	1/5/1974	1:00:00	25.822	23.0619
192	11/11/1985	11:00:00	25.797	23.0114
193	11/20/1983	12:00:00	25.772	22.9610

143	3/3/1983	7:00:00	15.278	5.492
144	3/1/1978	11:00:00	15.155	5.339
145	1/16/1993	10:00:00	15.040	5.198
146	2/8/1983	7:00:00	15.025	5.180
147	12/6/1986	18:00:00	14.947	5.084
148	3/1/1978	9:00:00	14.927	5.060
149	1/11/1980	9:00:00	14.856	4.974
150	3/12/1978	2:00:00	14.848	4.965
151	1/15/1978	2:00:00	14.763	4.863
152	3/12/1978	1:00:00	14.754	4.852
153	10/20/2004	17:00:00	14.547	4.606
154	1/31/1979	10:00:00	14.451	4.494
155	11/22/1996	3:00:00	14.447	4.489
156	3/1/1978	8:00:00	14.395	4.429
157	1/18/1993	14:00:00	14.382	4.414
158	1/7/1993	0:00:00	14.266	4.280
159	3/5/1995	13:00:00	14.116	4.110
160	3/15/1986	23:00:00	14.099	4.091
161	3/28/1979	21:00:00	13.817	3.777
162	1/31/1979	9:00:00	13.806	3.765
163	2/8/1976	19:00:00	13.788	3.745
164	3/5/1995	12:00:00	13.780	3.737
165	1/5/1974	2:00:00	13.727	3.679
166	4/5/2006	7:00:00	13.658	3.604
167	3/12/1978	0:00:00	13.607	3.549
168	3/3/1983	9:00:00	13.515	3.451
169	3/1/1978	7:00:00	13.419	3.349
170	2/1/1996	4:00:00	13.412	3.342
171	8/17/1977	4:00:00	13.289	3.213
172	11/25/1985	7:00:00	13.284	3.208
173	1/5/1974	1:00:00	13.172	3.093
174	2/21/1980	5:00:00	13.157	3.078
175	10/20/1979	16:00:00	13.114	3.034
176	2/14/2001	17:00:00	12.928	2.847
177	3/1/1991	11:00:00	12.756	2.677
178	1/5/1974	0:00:00	12.742	2.664
179	10/20/1979	15:00:00	12.735	2.657
180	8/17/1977	2:00:00	12.431	2.367
181	2/9/1976	3:00:00	12.361	2.302
182	2/8/1983	6:00:00	12.352	2.294
183	1/29/1983	1:00:00	12.185	2.142
184	2/8/1994	8:00:00	12.175	2.133
185	1/31/1979	7:00:00	12.158	2.117
186	3/3/1983	8:00:00	12.010	1.986
187	1/9/2005	5:00:00	11.959	1.941
188	3/5/2005	1:00:00	11.953	1.936
189	3/5/2005	0:00:00	11.827	1.827
190	2/8/1994	7:00:00	11.822	1.823
191	1/31/1979	17:00:00	11.788	1.794
192	12/18/1984	16:00:00	11.766	1.776
193	3/1/1991	6:00:00	11.555	1.600

194	1/31/1979	10:00:00	25.753	22.9228
195	2/28/2006	0:00:00	25.709	22.8342
196	2/8/1994	8:00:00	25.584	22.5832
197	3/28/1979	21:00:00	25.536	22.4871
198	3/1/1978	7:00:00	25.528	22.4711
199	2/9/1981	2:00:00	25.474	22.3631
200	3/5/1995	13:00:00	25.320	22.0561
201	1/31/1979	9:00:00	25.316	22.0482
202	2/19/2007	13:00:00	25.146	21.7110
203	1/5/1974	0:00:00	25.024	21.4700
204	3/13/1996	9:00:00	25.015	21.4523
205	1/10/1995	20:00:00	24.901	21.2280
206	2/19/1993	17:00:00	24.859	21.1455
207	12/28/2004	19:00:00	24.857	21.1416
208	3/6/1980	10:00:00	24.709	20.8519
209	3/5/1995	12:00:00	24.645	20.7271
210	10/14/2006	0:00:00	24.495	20.4354
211	10/10/1986	4:00:00	24.191	19.8484
212	12/4/1987	22:00:00	24.146	19.7620
213	2/13/1978	13:00:00	23.909	19.3089
214	1/4/2005	4:00:00	23.484	18.5052
215	2/5/1978	15:00:00	23.250	18.0674
216	2/14/1995	11:00:00	23.132	17.8480
217	1/31/1979	7:00:00	22.833	17.2960
218	12/6/1986	18:00:00	22.531	16.7442
219	12/7/1992	14:00:00	22.103	15.9725
220	2/9/1976	3:00:00	21.959	15.7155
221	2/13/1992	6:00:00	21.953	15.7048
222	11/11/1978	22:00:00	21.594	15.0704
223	8/17/1977	4:00:00	21.573	15.0336
224	4/28/2005	23:00:00	21.389	14.7121
225	3/24/1998	17:00:00	21.350	14.6443
226	1/27/1983	11:00:00	21.339	14.6251
227	10/20/1979	16:00:00	21.227	14.4309
228	11/25/1985	1:00:00	21.086	14.1877
229	1/29/1983	2:00:00	20.806	13.7088
230	3/16/1986	22:00:00	20.803	13.7037
231	2/7/1976	5:00:00	20.709	13.5442
232	1/4/1974	23:00:00	20.494	13.1816
233	3/11/2006	3:00:00	20.170	12.6415
234	2/14/1995	10:00:00	20.022	12.3973
235	1/4/1974	20:00:00	20.019	12.3924
236	3/22/2005	23:00:00	19.967	12.3070
237	12/18/1984	19:00:00	19.955	12.2873
238	4/5/2006	2:00:00	19.946	12.2726
239	4/20/1988	9:00:00	19.898	12.1940
240	12/11/1984	11:00:00	19.801	12.0357
241	1/27/2008	3:00:00	19.729	11.9186
242	10/20/1979	15:00:00	19.710	11.8878
243	11/20/1983	11:00:00	19.688	11.8522
244	1/25/1995	23:00:00	19.625	11.7503

194	10/19/2004	19:00:00	11.539	1.587
195	2/21/1980	6:00:00	11.257	1.364
196	2/23/2004	17:00:00	11.197	1.318
197	2/27/1983	18:00:00	11.115	1.256
198	2/13/1978	13:00:00	11.059	1.214
199	3/16/1986	22:00:00	11.054	1.211
200	3/18/1983	23:00:00	11.018	1.184
201	12/18/1984	19:00:00	10.944	1.130
202	1/27/2008	3:00:00	10.931	1.121
203	2/21/1980	1:00:00	10.816	1.039
204	1/29/1983	2:00:00	10.772	1.008
205	2/19/1993	17:00:00	10.766	1.004
206	3/3/1983	10:00:00	10.671	0.939
207	3/1/1991	5:00:00	10.576	0.875
208	10/20/2004	18:00:00	10.527	0.843
209	12/18/1984	17:00:00	10.459	0.799
210	12/11/1984	11:00:00	10.378	0.748
211	10/19/2004	18:00:00	10.317	0.710
212	1/25/1995	23:00:00	10.208	0.644
213	4/23/1980	4:00:00	9.981	0.514
214	3/5/1995	15:00:00	9.916	0.478
215	1/7/2008	3:00:00	9.912	0.476
216	3/11/1995	4:00:00	9.893	0.466
217	2/7/1976	5:00:00	9.825	0.430
218	1/5/1992	16:00:00	9.746	0.390
219	1/8/1993	0:00:00	9.674	0.354
220	1/29/1980	23:00:00	9.629	0.333
221	12/28/2004	22:00:00	9.619	0.328
222	1/4/1974	23:00:00	9.576	0.308
223	11/12/2003	7:00:00	9.536	0.290
224	10/20/1979	14:00:00	9.459	0.255
225	5/1/1978	5:00:00	9.450	0.252
226	4/4/2006	23:00:00	9.432	0.244
227	2/21/1980	3:00:00	9.299	0.189
228	2/1/1996	3:00:00	9.271	0.178
229	2/21/1980	2:00:00	9.268	0.177
230	2/7/1976	4:00:00	9.249	0.170
231	12/7/1992	17:00:00	9.232	0.164
232	1/11/2005	6:00:00	9.212	0.156
233	1/2/2006	16:00:00	9.146	0.133
234	1/31/1979	18:00:00	9.129	0.127
235	5/8/1977	23:00:00	9.119	0.123
236	3/2/1992	15:00:00	9.025	0.093
237	10/27/2004	15:00:00	9.004	0.087
238	12/25/2003	20:00:00	8.976	0.078
239	1/11/2005	7:00:00	8.858	0.047
240	3/26/1991	3:00:00	8.856	0.046
241	2/14/1980	17:00:00	8.848	0.044
242	2/21/1980	7:00:00	8.843	0.043
243	1/29/1980	13:00:00	8.834	0.041
244	3/1/1991	12:00:00	8.827	0.039

245	9/25/1986	6:00:00	19.624	11.7486
246	2/5/1976	2:00:00	19.527	11.5923
247	1/16/1993	9:00:00	19.504	11.5554
248	2/27/1983	6:00:00	19.449	11.4671
249	2/19/2007	12:00:00	19.421	11.4223
250	1/15/1993	16:00:00	19.339	11.2913
251	1/15/1993	14:00:00	19.329	11.2754
252	3/19/1981	23:00:00	19.232	11.1212
253	1/5/1992	16:00:00	19.229	11.1165
254	12/18/1984	17:00:00	19.210	11.0864
255	12/17/2002	17:00:00	19.204	11.0769
256	1/8/1993	0:00:00	19.191	11.0563
257	3/2/1992	17:00:00	19.168	11.0199
258	3/11/1975	14:00:00	19.047	10.8292
259	8/17/1977	2:00:00	19.030	10.8025
260	2/23/1998	17:00:00	19.030	10.8025
261	2/26/2004	17:00:00	19.030	10.8025
262	11/25/1983	0:00:00	19.006	10.7648
263	2/13/1978	0:00:00	18.990	10.7397
264	1/8/1974	3:00:00	18.952	10.6802
265	11/12/2003	9:00:00	18.854	10.5273
266	1/7/1974	18:00:00	18.814	10.4651
267	3/5/1978	8:00:00	18.798	10.4402
268	2/23/2005	1:00:00	18.753	10.3705
269	1/11/2001	8:00:00	18.642	10.1990
270	11/24/1978	13:00:00	18.524	10.0178
271	3/1/1991	11:00:00	18.413	9.8484
272	2/21/1980	5:00:00	18.400	9.8286
273	12/4/1974	11:00:00	18.393	9.8179
274	12/29/1976	14:00:00	18.343	9.7420
275	11/8/2004	1:00:00	18.321	9.7087
276	12/27/1984	19:00:00	18.310	9.6920
277	12/9/1996	19:00:00	18.274	9.6375
278	2/21/1980	1:00:00	18.263	9.6209
279	1/7/2008	3:00:00	18.184	9.5019
280	1/29/1980	5:00:00	18.151	9.4523
281	10/19/2004	18:00:00	18.146	9.4448
282	2/20/1980	18:00:00	18.001	9.2280
283	3/1/1991	6:00:00	17.941	9.1388
284	2/10/1978	4:00:00	17.836	8.9834
285	11/25/1985	4:00:00	17.820	8.9598
286	2/1/1996	3:00:00	17.806	8.9392
287	1/15/1978	1:00:00	17.777	8.8965
288	2/7/1978	19:00:00	17.765	8.8789
289	3/26/1991	3:00:00	17.692	8.7718
290	3/11/1986	2:00:00	17.503	8.4966
291	2/18/1980	4:00:00	17.472	8.4518
292	1/31/1996	22:00:00	17.423	8.3811
293	1/29/1980	23:00:00	17.417	8.3724
294	4/20/1983	12:00:00	17.345	8.2689

245	3/11/2006	1:00:00	8.822	0.038
246	2/9/1981	2:00:00	8.688	0.012
247	1/7/1993	16:00:00	8.658	0.008
248	2/19/2007	13:00:00	8.640	0.005
249	2/23/2005	1:00:00	8.634	0.005
250	2/20/1980	18:00:00	8.630	0.004
251	3/13/1996	9:00:00	8.612	0.003
252	1/7/1993	5:00:00	8.599	0.001
253	1/16/1993	9:00:00	8.582	0.000

ΣW_{POST} : **4959**

295	1/28/1980	22:00:00	17.332	8.2502
296	12/19/1978	9:00:00	17.303	8.2087
297	2/22/1998	17:00:00	17.299	8.2030
298	1/27/1983	13:00:00	17.297	8.2001
299	3/24/1983	4:00:00	17.237	8.1144
300	10/19/2004	19:00:00	17.170	8.0191
301	3/16/1986	17:00:00	17.123	7.9525
302	1/16/1978	23:00:00	17.113	7.9383
303	1/29/1980	13:00:00	17.110	7.9341
304	3/2/1978	10:00:00	17.075	7.8846
305	3/5/1978	5:00:00	17.054	7.8550
306	11/24/1978	7:00:00	17.054	7.8550
307	1/4/1987	19:00:00	17.026	7.8155
308	12/7/1992	13:00:00	17.017	7.8029
309	1/18/1979	18:00:00	16.996	7.7734
310	3/1/1991	5:00:00	16.980	7.7509
311	4/20/1983	11:00:00	16.949	7.7074
312	11/4/1987	23:00:00	16.901	7.6403
313	1/6/1979	3:00:00	16.849	7.5678
314	1/3/2005	10:00:00	16.754	7.4359
315	3/11/2006	13:00:00	16.729	7.4013
316	2/19/2007	16:00:00	16.656	7.3007
317	1/11/1980	1:00:00	16.655	7.2993
318	3/2/1981	2:00:00	16.534	7.1336
319	3/5/1995	15:00:00	16.509	7.0995
320	2/7/1998	16:00:00	16.423	6.9827
321	2/12/2005	16:00:00	16.408	6.9624
322	1/19/1980	3:00:00	16.361	6.8989
323	1/7/1993	16:00:00	16.355	6.8908
324	3/5/1978	16:00:00	16.326	6.8517
325	1/14/1990	4:00:00	16.299	6.8154
326	1/29/1980	9:00:00	16.237	6.7323
327	12/18/1978	23:00:00	16.202	6.6855
328	2/12/2005	8:00:00	16.176	6.6509
329	2/11/1978	12:00:00	16.028	6.4547
330	12/20/2002	17:00:00	15.985	6.3981
331	1/28/2005	17:00:00	15.892	6.2762
332	2/22/2008	7:00:00	15.871	6.2488
333	12/5/2004	15:00:00	15.821	6.1837
334	2/8/1993	21:00:00	15.748	6.0891
335	11/23/1973	3:00:00	15.714	6.0452
336	2/27/1996	23:00:00	15.667	5.9847
337	12/3/1983	17:00:00	15.644	5.9552
338	3/11/1995	7:00:00	15.634	5.9423
339	3/24/1994	23:00:00	15.571	5.8618
340	1/12/1993	16:00:00	15.552	5.8375
341	3/10/1986	21:00:00	15.436	5.6904
342	1/29/1980	4:00:00	15.434	5.6879
343	2/6/1976	7:00:00	15.431	5.6841
344	3/11/1978	23:00:00	15.380	5.6198
345	1/11/2005	2:00:00	15.159	5.3443

346	3/10/1980	18:00:00	15.061	5.2236
347	4/7/1978	5:00:00	15.018	5.1709
348	1/6/1992	12:00:00	14.964	5.1051
349	3/2/1983	16:00:00	14.961	5.1014
350	11/4/1987	19:00:00	14.904	5.0323
351	2/5/1978	18:00:00	14.888	5.0129
352	12/25/2003	20:00:00	14.820	4.9309
353	12/29/2004	6:00:00	14.809	4.9177
354	4/2/1974	6:00:00	14.758	4.8565
355	1/7/1993	8:00:00	14.758	4.8565
356	1/15/1993	19:00:00	14.727	4.8195
357	1/12/1993	19:00:00	14.570	4.6335
358	1/29/1980	2:00:00	14.565	4.6276
359	1/9/2005	23:00:00	14.451	4.4941
360	1/4/1974	21:00:00	14.429	4.4686
361	11/24/1978	3:00:00	14.355	4.3828
362	1/13/1993	21:00:00	14.291	4.3091
363	2/22/2005	22:00:00	14.263	4.2770
364	2/14/1995	12:00:00	14.250	4.2622
365	3/1/1978	6:00:00	14.235	4.2450
366	11/23/1973	0:00:00	14.047	4.0322
367	4/14/1998	17:00:00	14.018	3.9997
368	1/6/1993	22:00:00	13.825	3.7858
369	3/1/1983	15:00:00	13.767	3.7223
370	1/5/1978	22:00:00	13.758	3.7125
371	12/17/1978	23:00:00	13.740	3.6929
372	12/11/1984	10:00:00	13.679	3.6267
373	4/5/2006	1:00:00	13.647	3.5921
374	2/20/1980	5:00:00	13.594	3.5352
375	12/27/1984	4:00:00	13.518	3.4540
376	1/9/1978	19:00:00	13.497	3.4317
377	11/24/1984	22:00:00	13.493	3.4275
378	2/21/2005	7:00:00	13.429	3.3598
379	1/14/1990	5:00:00	13.293	3.2176
380	12/7/1992	15:00:00	13.134	3.0540
381	2/11/2003	17:00:00	13.099	3.0184
382	10/27/2004	15:00:00	13.057	2.9759
383	2/28/2006	2:00:00	12.984	2.9025
384	12/6/1998	7:00:00	12.929	2.8476
385	1/26/1997	3:00:00	12.865	2.7841
386	1/11/2001	7:00:00	12.709	2.6316
387	1/11/2005	6:00:00	12.687	2.6104
388	1/10/1995	21:00:00	12.653	2.5776
389	2/2/1998	16:00:00	12.552	2.4811
390	3/5/1981	18:00:00	12.472	2.4057
391	1/6/1993	14:00:00	12.429	2.3654
392	3/12/1995	0:00:00	12.250	2.2005
393	1/31/1996	21:00:00	12.169	2.1272
394	1/11/2005	7:00:00	12.087	2.0539
395	2/7/1978	18:00:00	12.077	2.0450
396	11/29/1985	15:00:00	12.015	1.9902

397	1/7/1993	5:00:00	11.967	1.9482
398	10/31/1987	18:00:00	11.926	1.9125
399	12/19/1978	7:00:00	11.872	1.8659
400	1/14/1978	19:00:00	11.844	1.8419
401	2/5/1976	17:00:00	11.833	1.8325
402	2/12/2005	11:00:00	11.803	1.8070
403	2/5/1976	3:00:00	11.716	1.7335
404	3/16/1986	23:00:00	11.710	1.7285
405	1/16/1993	12:00:00	11.596	1.6340
406	1/7/1993	6:00:00	11.562	1.6062
407	2/15/1986	9:00:00	11.538	1.5866
408	1/7/2008	5:00:00	11.432	1.5013
409	2/20/1993	7:00:00	11.425	1.4957
410	9/25/1986	7:00:00	11.307	1.4028
411	1/5/1992	20:00:00	11.300	1.3973
412	1/18/1979	8:00:00	11.189	1.3120
413	1/5/1992	19:00:00	11.167	1.2952
414	1/16/1993	13:00:00	11.104	1.2478
415	1/5/1992	15:00:00	11.078	1.2284
416	1/5/1992	17:00:00	11.067	1.2203
417	5/2/1980	0:00:00	11.021	1.1863
418	1/5/1992	18:00:00	11.016	1.1826
419	11/25/1985	10:00:00	10.992	1.1650
420	3/1/1981	5:00:00	10.925	1.1165
421	3/6/1980	8:00:00	10.898	1.0971
422	1/27/1983	9:00:00	10.893	1.0935
423	3/2/1992	10:00:00	10.876	1.0814
424	2/8/1976	17:00:00	10.834	1.0516
425	1/6/1979	4:00:00	10.774	1.0096
426	11/21/2004	8:00:00	10.736	0.9833
427	1/2/2006	16:00:00	10.735	0.9827
428	3/6/1975	12:00:00	10.733	0.9813
429	1/12/2001	13:00:00	10.720	0.9723
430	2/2/1983	15:00:00	10.711	0.9662
431	11/25/1985	9:00:00	10.704	0.9614
432	2/28/2006	8:00:00	10.649	0.9241
433	1/25/1995	21:00:00	10.628	0.9099
434	2/7/1998	15:00:00	10.587	0.8826
435	12/4/1974	13:00:00	10.570	0.8713
436	3/2/1983	22:00:00	10.467	0.8042
437	12/17/1987	7:00:00	10.463	0.8016
438	3/1/1991	2:00:00	10.457	0.7978
439	3/3/1983	5:00:00	10.442	0.7882
440	12/30/1981	15:00:00	10.436	0.7844
441	1/7/1993	2:00:00	10.411	0.7685
442	3/3/1983	9:00:00	10.339	0.7234
443	9/3/1976	17:00:00	10.271	0.6817
444	12/11/1984	8:00:00	10.222	0.6522
445	2/28/1983	2:00:00	10.191	0.6337
446	3/3/1983	3:00:00	10.135	0.6009
447	2/13/1998	16:00:00	10.087	0.5732

448	1/7/2005	14:00:00	10.076	0.5669
449	1/10/2005	1:00:00	10.035	0.5437
450	1/13/1993	23:00:00	9.938	0.4901
451	3/12/1986	14:00:00	9.923	0.4820
452	3/12/1986	13:00:00	9.897	0.4681
453	10/19/2004	14:00:00	9.886	0.4622
454	1/7/1993	22:00:00	9.871	0.4543
455	2/1/1996	5:00:00	9.840	0.4380
456	10/20/2004	17:00:00	9.836	0.4359
457	1/9/2005	9:00:00	9.829	0.4323
458	1/12/1995	14:00:00	9.801	0.4178
459	3/8/1975	13:00:00	9.773	0.4035
460	1/7/1993	20:00:00	9.696	0.3651
461	3/25/1994	0:00:00	9.670	0.3525
462	2/22/2005	21:00:00	9.632	0.3342
463	12/29/2004	3:00:00	9.628	0.3323
464	2/7/1998	18:00:00	9.620	0.3285
465	2/22/2005	20:00:00	9.548	0.2951
466	3/1/1991	12:00:00	9.519	0.2820
467	2/12/2005	7:00:00	9.512	0.2788
468	1/15/1993	13:00:00	9.493	0.2704
469	10/20/1979	14:00:00	9.431	0.2434
470	11/25/1985	5:00:00	9.404	0.2320
471	4/29/1980	1:00:00	9.378	0.2212
472	1/6/1993	23:00:00	9.368	0.2170
473	4/20/1983	10:00:00	9.363	0.2150
474	1/10/1980	12:00:00	9.311	0.1941
475	11/11/1985	13:00:00	9.299	0.1893
476	3/5/2005	2:00:00	9.292	0.1866
477	3/12/1986	12:00:00	9.279	0.1816
478	1/26/1997	9:00:00	9.203	0.1530
479	11/24/1984	23:00:00	9.191	0.1486
480	1/13/1993	1:00:00	9.164	0.1390
481	1/14/1993	1:00:00	9.132	0.1279
482	12/7/1992	20:00:00	9.042	0.0983
483	4/26/1994	18:00:00	9.028	0.0939
484	3/16/1986	0:00:00	8.902	0.0578
485	1/7/1993	11:00:00	8.884	0.0531
486	1/26/1997	8:00:00	8.846	0.0437
487	5/8/1977	23:00:00	8.846	0.0437
488	11/1/1974	23:00:00	8.839	0.0421
489	1/12/1993	20:00:00	8.752	0.0233
490	2/21/2005	6:00:00	8.730	0.0192
491	3/2/1983	2:00:00	8.688	0.0121
492	1/17/1993	5:00:00	8.621	0.0034

ΣW_{PRE} : 21729

m	0.400	(2/5)
3m/2	0.600	

SUMMARY

(a) ΣW_{PRE} :	21729
(b) ΣW_{POST} :	4959
(c) $S_{Y_{RUSLE}}$:	1.577
(d) $S_{Y_{NHD}}$:	N/A

E_p :	0.228	[(b)/(a)]
S_p :	1.577	[(c)]

E_p / S_p :	0.1
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 2A - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		8.814 cfs		
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	203.518	136.224
2	2/20/1980	19:00:00	193.418	128.049
3	10/22/1976	17:00:00	162.304	103.179
4	9/10/1976	10:00:00	140.628	86.185
5	10/31/1987	19:00:00	130.725	78.531
6	2/7/1998	17:00:00	130.125	78.070
7	10/22/1976	16:00:00	128.059	76.484
8	1/9/2005	21:00:00	124.516	73.773
9	1/29/1980	7:00:00	118.312	69.051
10	2/6/1992	20:00:00	117.406	68.365
11	2/2/1998	17:00:00	115.639	67.028
12	10/18/2004	13:00:00	112.274	64.491
13	10/20/2004	12:00:00	111.274	63.740
14	2/19/1993	16:00:00	108.468	61.6358
15	2/13/1998	17:00:00	108.373	61.5647
16	1/31/1979	14:00:00	98.364	54.1325
17	3/1/1983	16:00:00	97.335	53.3751
18	1/9/2005	20:00:00	96.235	52.5670
19	8/17/1977	3:00:00	89.831	47.8935
20	3/2/1983	18:00:00	88.138	46.6674
21	3/6/1975	11:00:00	87.219	46.0036
22	2/21/2005	14:00:00	85.670	44.8875
23	2/15/1992	15:00:00	84.885	44.3233
24	10/27/2004	5:00:00	82.142	42.3593
25	4/18/1995	12:00:00	80.713	41.3408
26	3/3/1983	1:00:00	78.324	39.6458
27	2/20/1980	20:00:00	77.630	39.1552
28	3/4/1978	18:00:00	76.301	38.2181
29	2/18/1980	5:00:00	76.295	38.2139
30	2/16/1980	20:00:00	75.759	37.8369
31	1/31/1979	16:00:00	75.596	37.7223
32	12/4/1974	12:00:00	75.483	37.6429
33	1/18/1993	6:00:00	75.286	37.5046
34	1/31/1979	13:00:00	74.895	37.2302
35	10/10/1986	0:00:00	73.368	36.1614
36	2/12/2003	17:00:00	72.571	35.6053
37	1/13/1993	22:00:00	72.362	35.4596
38	1/31/1979	8:00:00	71.945	35.1693
39	2/25/2003	17:00:00	70.565	34.2110

Work Calculations, Post-Development Conditions				
Low flow Threshold:		8.814 cfs		
Type of flow:		10% of Q_2		
Notes:				
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	136.302	82.832
2	2/20/1980	19:00:00	135.465	82.185
3	10/22/1976	17:00:00	123.600	73.073
4	1/31/1979	14:00:00	115.545	66.957
5	1/31/1979	16:00:00	102.040	56.849
6	9/10/1976	10:00:00	100.224	55.505
7	2/7/1998	17:00:00	92.469	49.812
8	10/31/1987	19:00:00	90.514	48.389
9	1/9/2005	21:00:00	87.594	46.274
10	1/31/1979	13:00:00	85.424	44.711
11	3/3/1983	1:00:00	84.577	44.102
12	1/29/1980	7:00:00	84.268	43.880
13	2/2/1998	17:00:00	83.044	43.004
14	10/22/1976	16:00:00	82.910	42.908
15	10/18/2004	13:00:00	81.068	41.594
16	10/20/2004	12:00:00	80.394	41.114
17	2/6/1992	20:00:00	79.408	40.414
18	2/13/1998	17:00:00	77.807	39.280
19	3/3/1983	6:00:00	77.805	39.279
20	10/20/2004	16:00:00	75.758	37.836
21	2/19/1993	16:00:00	71.773	35.050
22	8/17/1977	3:00:00	67.875	32.354
23	3/1/1983	16:00:00	67.605	32.169
24	1/9/2005	20:00:00	66.805	31.620
25	10/20/2004	15:00:00	66.726	31.566
26	3/5/1995	20:00:00	65.671	30.844
27	3/2/1983	18:00:00	63.760	29.544
28	2/21/2005	14:00:00	62.157	28.460
29	1/29/1980	20:00:00	60.279	27.197
30	2/15/1992	15:00:00	57.268	25.192
31	10/27/2004	10:00:00	57.241	25.174
32	2/20/1980	20:00:00	56.885	24.939
33	4/18/1995	12:00:00	56.020	24.368
34	2/18/1980	5:00:00	55.793	24.219
35	2/16/1980	20:00:00	54.630	23.456
36	3/6/1975	11:00:00	54.019	23.057
37	1/31/1979	8:00:00	53.372	22.635
38	3/4/1978	18:00:00	53.269	22.568
39	12/4/1974	12:00:00	52.738	22.223

40	1/9/1980	13:00:00	69.944	33.7810
41	3/3/1983	6:00:00	69.296	33.3332
42	10/28/1974	12:00:00	66.260	31.2467
43	10/20/2004	16:00:00	65.539	30.7541
44	10/20/2004	15:00:00	65.439	30.6859
45	10/20/2004	13:00:00	65.304	30.5939
46	2/15/1986	4:00:00	64.405	29.9818
47	2/16/1998	17:00:00	64.127	29.7929
48	10/28/1974	11:00:00	63.518	29.3797
49	10/19/2004	8:00:00	61.377	27.9342
50	1/11/2005	4:00:00	59.859	26.9161
51	3/21/1983	5:00:00	59.341	26.5701
52	12/28/1977	8:00:00	58.468	25.9884
53	2/23/2005	4:00:00	57.546	25.3763
54	3/16/1986	21:00:00	57.303	25.2154
55	1/25/1995	19:00:00	57.225	25.1638
56	10/27/2004	14:00:00	57.215	25.1571
57	3/5/1995	20:00:00	55.763	24.1992
58	12/29/2004	4:00:00	55.424	23.9764
59	3/5/1995	17:00:00	55.177	23.8143
60	1/27/2008	2:00:00	54.990	23.6917
61	2/15/1986	6:00:00	54.794	23.5633
62	10/27/2004	8:00:00	54.400	23.3055
63	2/10/1978	6:00:00	54.347	23.2709
64	2/21/2005	11:00:00	54.212	23.1827
65	2/10/1978	5:00:00	54.196	23.1722
66	1/15/1978	4:00:00	53.972	23.0260
67	12/25/2003	19:00:00	53.757	22.8858
68	1/11/1980	13:00:00	53.256	22.5596
69	2/9/1976	1:00:00	52.706	22.2024
70	2/8/1976	22:00:00	52.669	22.1784
71	2/8/1976	21:00:00	52.467	22.0475
72	2/18/1980	9:00:00	52.256	21.9109
73	2/15/1986	5:00:00	52.040	21.7711
74	2/13/1978	11:00:00	51.885	21.6710
75	1/29/1980	20:00:00	51.874	21.6639
76	2/19/1980	22:00:00	51.841	21.6426
77	1/14/1978	20:00:00	51.742	21.5786
78	1/8/1998	17:00:00	51.429	21.3767
79	10/27/2004	7:00:00	51.352	21.3271
80	12/18/1988	14:00:00	51.344	21.3219
81	1/31/1979	12:00:00	51.239	21.2543
82	3/1/1983	17:00:00	51.133	21.1861
83	3/2/1983	19:00:00	51.124	21.1803
84	3/1/1981	14:00:00	51.043	21.1282
85	1/10/1978	8:00:00	51.023	21.1153
86	2/27/1978	22:00:00	50.913	21.0446
87	1/11/2005	5:00:00	50.721	20.9212
88	2/19/1980	16:00:00	50.717	20.9186
89	3/2/1983	17:00:00	50.589	20.8364

40	2/12/2003	17:00:00	51.483	21.412
41	10/28/1974	12:00:00	51.433	21.379
42	2/25/2003	17:00:00	51.373	21.341
43	1/9/1980	13:00:00	50.725	20.924
44	1/18/1993	6:00:00	49.952	20.428
45	10/20/2004	13:00:00	49.282	20.000
46	10/28/1974	11:00:00	48.727	19.647
47	1/13/1993	22:00:00	47.985	19.177
48	10/27/2004	14:00:00	47.945	19.151
49	10/10/1986	0:00:00	46.901	18.493
50	10/19/2004	8:00:00	46.117	18.001
51	10/27/2004	9:00:00	45.881	17.853
52	3/5/1995	19:00:00	45.767	17.782
53	10/27/2004	5:00:00	44.838	17.203
54	2/16/1998	17:00:00	44.827	17.196
55	1/11/2005	4:00:00	44.226	16.824
56	1/29/1980	18:00:00	43.285	16.243
57	3/5/1995	17:00:00	42.739	15.908
58	2/23/2005	4:00:00	42.690	15.878
59	2/15/1986	4:00:00	41.822	15.348
60	3/16/1986	21:00:00	41.260	15.007
61	3/5/1995	22:00:00	41.118	14.921
62	1/15/1978	4:00:00	41.001	14.850
63	1/11/1980	13:00:00	40.705	14.671
64	1/25/1995	19:00:00	40.688	14.661
65	2/10/1978	6:00:00	40.504	14.550
66	2/8/1976	22:00:00	40.369	14.469
67	2/9/1976	1:00:00	40.347	14.456
68	2/8/1976	21:00:00	40.078	14.294
69	12/29/2004	4:00:00	39.826	14.143
70	1/27/2008	2:00:00	39.281	13.817
71	2/18/1980	9:00:00	39.198	13.767
72	1/31/1979	12:00:00	39.084	13.699
73	2/10/1978	5:00:00	38.902	13.591
74	1/14/1978	20:00:00	38.840	13.554
75	2/21/2005	11:00:00	38.559	13.387
76	2/15/1986	6:00:00	38.538	13.374
77	3/2/1983	19:00:00	38.420	13.304
78	10/27/2004	8:00:00	38.265	13.213
79	12/25/2003	19:00:00	38.234	13.194
80	1/11/2005	5:00:00	38.225	13.189
81	3/21/1983	5:00:00	38.010	13.062
82	2/19/1980	22:00:00	37.733	12.898
83	3/2/1983	17:00:00	37.588	12.813
84	3/1/1983	17:00:00	37.506	12.765
85	3/1/1981	14:00:00	37.247	12.613
86	10/28/1974	13:00:00	37.097	12.525
87	1/11/1980	7:00:00	36.947	12.437
88	10/20/2004	14:00:00	36.737	12.314
89	2/21/2005	13:00:00	36.576	12.220

90	1/11/1980	7:00:00	50.474	20.7627
91	2/16/1980	19:00:00	50.079	20.5095
92	2/27/1983	19:00:00	50.029	20.4775
93	4/23/1980	4:00:00	48.939	19.7820
94	2/28/1978	20:00:00	48.917	19.7680
95	12/29/2004	2:00:00	48.736	19.6529
96	1/29/1980	18:00:00	48.550	19.5347
97	10/27/2004	10:00:00	48.534	19.5246
98	2/21/2005	13:00:00	48.412	19.4472
99	3/27/1998	17:00:00	48.083	19.2386
100	12/25/1988	1:00:00	47.365	18.7849
101	12/28/1977	13:00:00	47.300	18.7439
102	10/20/2004	14:00:00	46.864	18.4694
103	10/27/2004	6:00:00	46.530	18.2595
104	1/12/2001	12:00:00	46.439	18.2024
105	3/5/1995	18:00:00	46.169	18.0332
106	1/16/1979	2:00:00	45.639	17.7018
107	1/7/2008	1:00:00	45.633	17.6981
108	10/28/1974	13:00:00	44.576	17.0405
109	3/16/1986	11:00:00	44.406	16.9351
110	4/15/1976	21:00:00	43.622	16.4508
111	11/25/1985	7:00:00	43.615	16.4464
112	3/5/2005	0:00:00	43.473	16.3590
113	11/22/1996	3:00:00	43.079	16.1168
114	5/9/1977	0:00:00	42.387	15.6929
115	2/1/1996	2:00:00	42.061	15.4939
116	5/1/1978	5:00:00	41.921	15.4086
117	1/6/2008	7:00:00	41.345	15.0586
118	1/31/1979	6:00:00	41.196	14.9683
119	9/10/1976	9:00:00	41.128	14.9271
120	12/18/1978	18:00:00	40.919	14.8006
121	4/5/2006	7:00:00	40.403	14.4893
122	12/25/1988	0:00:00	40.186	14.3587
123	1/17/1990	3:00:00	40.179	14.3545
124	12/18/1984	18:00:00	39.339	13.8512
125	11/30/2007	23:00:00	39.066	13.6883
126	2/21/2005	12:00:00	38.971	13.6317
127	10/27/2004	9:00:00	37.905	12.9998
128	3/1/1991	9:00:00	37.865	12.9762
129	3/1/1991	7:00:00	37.657	12.8536
130	4/4/2006	23:00:00	37.195	12.5821
131	3/11/1995	4:00:00	37.194	12.5815
132	11/12/2003	7:00:00	37.172	12.5686
133	3/5/1995	19:00:00	37.106	12.5299
134	3/5/1995	16:00:00	36.341	12.0832
135	10/19/2004	16:00:00	35.975	11.8706
136	2/14/2001	17:00:00	35.848	11.7970
137	3/15/1986	23:00:00	35.700	11.7113
138	2/8/1994	7:00:00	35.377	11.5248
139	12/28/2004	22:00:00	35.206	11.4263

90	3/5/1995	18:00:00	36.506	12.179
91	3/5/1995	21:00:00	36.116	11.952
92	2/15/1986	5:00:00	36.046	11.912
93	2/27/1983	19:00:00	36.004	11.887
94	2/13/1978	11:00:00	35.886	11.819
95	2/28/1978	20:00:00	35.567	11.634
96	1/10/1978	8:00:00	35.473	11.580
97	1/29/1980	19:00:00	35.472	11.580
98	10/27/2004	7:00:00	35.372	11.522
99	12/25/1988	1:00:00	35.287	11.473
100	12/18/1988	14:00:00	35.248	11.450
101	1/8/1998	17:00:00	35.031	11.326
102	5/9/1977	0:00:00	34.981	11.297
103	2/27/1978	22:00:00	34.690	11.130
104	2/16/1980	19:00:00	34.590	11.073
105	1/16/1979	2:00:00	33.427	10.411
106	1/12/2001	12:00:00	32.985	10.162
107	12/29/2004	2:00:00	32.769	10.041
108	3/27/1998	17:00:00	32.447	9.861
109	12/28/1977	13:00:00	32.393	9.830
110	4/15/1976	21:00:00	31.176	9.155
111	12/28/1977	8:00:00	30.861	8.982
112	9/10/1976	9:00:00	30.853	8.978
113	12/18/1984	18:00:00	30.843	8.973
114	2/19/1980	16:00:00	30.698	8.893
115	3/1/1991	9:00:00	30.502	8.786
116	3/1/1991	7:00:00	30.401	8.731
117	3/16/1986	11:00:00	29.963	8.493
118	3/5/1995	16:00:00	29.898	8.458
119	10/27/2004	6:00:00	29.836	8.424
120	2/21/2005	12:00:00	29.781	8.394
121	2/1/1996	2:00:00	29.744	8.374
122	10/19/2004	16:00:00	29.557	8.273
123	1/6/2008	7:00:00	29.551	8.270
124	1/7/2008	1:00:00	29.366	8.171
125	12/25/1988	0:00:00	28.717	7.823
126	1/31/1979	6:00:00	28.587	7.754
127	1/8/1993	0:00:00	28.118	7.506
128	1/17/1990	3:00:00	27.797	7.337
129	11/22/1996	3:00:00	27.380	7.118
130	11/30/2007	23:00:00	26.978	6.909
131	8/17/1977	1:00:00	26.544	6.685
132	1/29/1980	23:00:00	26.418	6.620
133	1/29/1980	13:00:00	26.413	6.618
134	11/25/1985	7:00:00	26.032	6.423
135	4/5/2006	7:00:00	25.956	6.384
136	2/21/1980	5:00:00	25.530	6.168
137	1/11/2005	8:00:00	25.481	6.143
138	1/7/1993	4:00:00	25.389	6.097
139	1/7/1993	3:00:00	25.193	5.998

140	2/15/1986	3:00:00	34.881	11.2395
141	3/11/2006	1:00:00	34.246	10.8763
142	1/18/1993	14:00:00	33.958	10.7124
143	2/26/1983	15:00:00	33.632	10.5274
144	12/23/1982	1:00:00	33.564	10.4889
145	11/12/2003	6:00:00	33.549	10.4804
146	1/9/2005	5:00:00	32.831	10.0757
147	12/7/1992	17:00:00	32.792	10.0538
148	2/27/1983	18:00:00	32.759	10.0353
149	3/18/1983	23:00:00	32.629	9.9625
150	2/11/2005	16:00:00	32.546	9.9160
151	3/2/1992	15:00:00	32.435	9.8539
152	2/23/2004	17:00:00	32.339	9.8003
153	1/29/1983	1:00:00	32.316	9.7874
154	2/8/1983	6:00:00	32.156	9.6982
155	2/7/1976	4:00:00	32.147	9.6932
156	1/11/2005	8:00:00	32.132	9.6849
157	1/12/1997	17:00:00	31.736	9.4648
158	2/8/1983	7:00:00	31.642	9.4128
159	3/6/1980	5:00:00	31.618	9.3995
160	1/7/1993	4:00:00	31.516	9.3431
161	3/5/2005	1:00:00	31.342	9.2470
162	1/16/1993	11:00:00	31.319	9.2343
163	1/7/1993	3:00:00	31.289	9.2177
164	1/11/2005	3:00:00	31.212	9.1753
165	1/17/1978	3:00:00	31.127	9.1285
166	2/14/1980	17:00:00	31.058	9.0906
167	3/12/1978	2:00:00	31.047	9.0845
168	11/11/1985	11:00:00	30.940	9.0257
169	3/12/1978	1:00:00	30.890	8.9983
170	11/20/1983	12:00:00	30.855	8.9791
171	1/15/1978	6:00:00	30.843	8.9725
172	2/28/2006	0:00:00	30.835	8.9681
173	1/15/1978	3:00:00	30.710	8.8997
174	1/16/1993	10:00:00	30.707	8.8980
175	1/7/1993	0:00:00	30.519	8.7953
176	2/9/1981	2:00:00	30.503	8.7865
177	2/18/1980	6:00:00	30.391	8.7254
178	1/15/1978	2:00:00	30.340	8.6977
179	8/17/1977	1:00:00	30.182	8.6117
180	2/19/2007	13:00:00	30.106	8.5704
181	3/13/1996	9:00:00	29.957	8.4896
182	3/12/1978	0:00:00	29.862	8.4381
183	1/10/1995	20:00:00	29.849	8.4311
184	12/28/2004	19:00:00	29.813	8.4116
185	1/11/1980	12:00:00	29.799	8.4040
186	12/18/1984	16:00:00	29.692	8.3462
187	1/11/1980	9:00:00	29.652	8.3246
188	3/6/1980	10:00:00	29.586	8.2890
189	10/14/2006	0:00:00	29.489	8.2367

140	1/15/1978	3:00:00	25.105	5.954
141	1/15/1978	6:00:00	25.047	5.925
142	12/29/2004	6:00:00	24.988	5.895
143	1/17/1978	3:00:00	24.921	5.862
144	3/12/1978	2:00:00	24.908	5.855
145	2/18/1980	6:00:00	24.799	5.801
146	1/15/1978	2:00:00	24.790	5.796
147	1/11/1980	12:00:00	24.583	5.693
148	10/27/2004	15:00:00	24.555	5.679
149	1/11/1980	9:00:00	24.553	5.678
150	1/16/1993	11:00:00	24.454	5.629
151	1/7/1993	0:00:00	24.424	5.614
152	12/18/1978	18:00:00	24.404	5.605
153	3/1/1991	10:00:00	24.250	5.528
154	3/1/1991	8:00:00	24.190	5.499
155	3/12/1978	1:00:00	24.188	5.498
156	1/16/1993	10:00:00	23.756	5.286
157	2/8/1983	7:00:00	23.696	5.257
158	3/15/1986	23:00:00	23.670	5.244
159	1/18/1993	14:00:00	23.607	5.214
160	1/11/2005	3:00:00	23.556	5.189
161	3/1/1978	9:00:00	23.318	5.073
162	3/5/2005	0:00:00	23.244	5.038
163	3/5/1995	13:00:00	23.236	5.034
164	3/1/1978	11:00:00	23.222	5.027
165	3/1/1978	8:00:00	23.129	4.982
166	2/1/1996	4:00:00	23.038	4.939
167	1/5/1974	2:00:00	22.881	4.863
168	1/31/1979	10:00:00	22.738	4.795
169	3/5/1995	12:00:00	22.571	4.715
170	1/5/1974	1:00:00	22.495	4.679
171	1/31/1979	9:00:00	22.470	4.668
172	2/14/2001	17:00:00	22.399	4.634
173	3/1/1978	7:00:00	21.955	4.425
174	3/5/2005	1:00:00	21.923	4.410
175	1/5/1974	0:00:00	21.912	4.405
176	3/12/1978	0:00:00	21.830	4.367
177	12/6/1986	18:00:00	21.677	4.295
178	2/8/1976	19:00:00	21.535	4.230
179	8/17/1977	4:00:00	21.393	4.164
180	4/23/1980	4:00:00	21.369	4.153
181	3/28/1979	21:00:00	21.192	4.071
182	2/8/1994	7:00:00	21.183	4.067
183	10/20/1979	16:00:00	21.016	3.991
184	1/9/2005	5:00:00	20.804	3.895
185	2/8/1983	6:00:00	20.784	3.885
186	12/18/1984	16:00:00	20.246	3.643
187	1/29/1983	1:00:00	20.140	3.596
188	2/8/1994	8:00:00	20.089	3.574
189	1/31/1979	7:00:00	20.073	3.566

190	12/4/1987	22:00:00	29.048	8.0000
191	2/1/1996	4:00:00	28.998	7.9733
192	10/10/1986	4:00:00	28.980	7.9636
193	3/1/1991	10:00:00	28.756	7.8441
194	1/29/1980	19:00:00	28.702	7.8153
195	3/1/1991	8:00:00	28.601	7.7615
196	3/5/1995	22:00:00	28.292	7.5976
197	3/5/1995	21:00:00	28.270	7.5860
198	2/19/1993	17:00:00	28.163	7.5294
199	1/5/1974	2:00:00	28.140	7.5173
200	1/4/2005	4:00:00	28.117	7.5051
201	2/8/1976	19:00:00	28.082	7.4866
202	3/1/1978	11:00:00	27.879	7.3797
203	3/1/1978	9:00:00	27.866	7.3729
204	2/5/1978	15:00:00	27.859	7.3692
205	2/14/1995	11:00:00	27.695	7.2831
206	3/1/1978	8:00:00	27.688	7.2794
207	1/5/1974	1:00:00	27.590	7.2281
208	2/8/1994	8:00:00	27.263	7.0573
209	1/31/1979	10:00:00	27.257	7.0542
210	3/1/1978	7:00:00	27.049	6.9460
211	1/5/1974	0:00:00	26.809	6.8217
212	1/31/1979	9:00:00	26.775	6.8041
213	2/13/1978	13:00:00	26.742	6.7871
214	3/28/1979	21:00:00	26.736	6.7840
215	12/7/1992	14:00:00	26.462	6.6428
216	2/13/1992	6:00:00	26.307	6.5632
217	3/5/1995	13:00:00	26.195	6.5059
218	11/11/1978	22:00:00	25.913	6.3620
219	4/28/2005	23:00:00	25.670	6.2386
220	3/24/1998	17:00:00	25.587	6.1965
221	1/27/1983	11:00:00	25.561	6.1834
222	3/5/1995	12:00:00	25.484	6.1444
223	11/25/1985	1:00:00	25.312	6.0577
224	2/9/1976	3:00:00	24.427	5.6159
225	1/31/1979	7:00:00	24.283	5.5448
226	3/11/2006	3:00:00	24.199	5.5034
227	1/4/1974	20:00:00	24.046	5.4281
228	2/14/1995	10:00:00	24.036	5.4232
229	3/22/2005	23:00:00	23.915	5.3639
230	4/5/2006	2:00:00	23.881	5.3472
231	4/20/1988	9:00:00	23.868	5.3409
232	11/20/1983	11:00:00	23.591	5.2058
233	9/25/1986	6:00:00	23.498	5.1606
234	2/5/1976	2:00:00	23.446	5.1354
235	1/16/1993	9:00:00	23.354	5.0908
236	2/27/1983	6:00:00	23.303	5.0662
237	2/19/2007	12:00:00	23.274	5.0522
238	2/7/1976	5:00:00	23.259	5.0449
239	1/15/1993	16:00:00	23.155	4.9948

190	2/15/1986	9:00:00	20.045	3.554
191	12/28/2004	22:00:00	19.929	3.503
192	2/23/2004	17:00:00	19.592	3.355
193	5/1/1978	5:00:00	19.488	3.309
194	10/20/1979	15:00:00	19.428	3.283
195	2/27/1983	18:00:00	19.317	3.235
196	12/7/1992	17:00:00	19.244	3.203
197	3/18/1983	23:00:00	19.223	3.194
198	2/13/1978	13:00:00	19.202	3.185
199	11/12/2003	7:00:00	19.092	3.138
200	2/19/1993	17:00:00	19.083	3.134
201	2/9/1976	3:00:00	18.896	3.054
202	3/16/1986	22:00:00	18.874	3.044
203	12/18/1984	19:00:00	18.814	3.019
204	4/4/2006	23:00:00	18.813	3.018
205	8/17/1977	2:00:00	18.418	2.852
206	3/11/1995	4:00:00	18.349	2.823
207	1/25/1995	23:00:00	18.188	2.756
208	3/2/1992	15:00:00	18.129	2.731
209	10/20/2004	17:00:00	18.124	2.729
210	3/1/1991	11:00:00	17.978	2.669
211	1/4/1974	23:00:00	17.859	2.620
212	3/6/1980	10:00:00	17.856	2.618
213	12/11/1984	11:00:00	17.806	2.598
214	3/1/1991	6:00:00	17.713	2.560
215	2/19/2007	13:00:00	17.658	2.538
216	10/10/1986	4:00:00	17.636	2.529
217	1/27/2008	3:00:00	17.623	2.523
218	2/9/1981	2:00:00	17.456	2.456
219	10/19/2004	19:00:00	17.304	2.395
220	2/15/1986	3:00:00	17.229	2.365
221	3/11/2006	1:00:00	17.162	2.338
222	11/20/1983	12:00:00	17.077	2.304
223	3/5/1995	15:00:00	17.005	2.276
224	1/29/1983	2:00:00	16.987	2.269
225	3/13/1996	9:00:00	16.960	2.258
226	12/18/1984	17:00:00	16.943	2.251
227	3/1/1991	5:00:00	16.886	2.229
228	3/3/1983	5:00:00	16.792	2.192
229	2/14/1980	17:00:00	16.775	2.185
230	3/3/1983	9:00:00	16.704	2.157
231	2/1/1996	3:00:00	16.683	2.149
232	1/7/2008	3:00:00	16.671	2.145
233	12/23/1982	1:00:00	16.658	2.140
234	2/14/1995	11:00:00	16.640	2.133
235	1/12/1997	17:00:00	16.499	2.078
236	10/19/2004	18:00:00	16.499	2.078
237	12/7/1992	14:00:00	16.292	1.999
238	2/11/2005	16:00:00	16.250	1.983
239	1/5/1992	16:00:00	16.001	1.888

240	1/15/1993	14:00:00	23.142	4.9885
241	3/19/1981	23:00:00	23.091	4.9640
242	12/17/2002	17:00:00	23.018	4.9289
243	1/8/1993	0:00:00	22.978	4.9097
244	3/2/1992	17:00:00	22.950	4.8963
245	1/4/1974	23:00:00	22.926	4.8848
246	11/25/1983	0:00:00	22.858	4.8523
247	2/23/1998	17:00:00	22.812	4.8303
248	2/26/2004	17:00:00	22.812	4.8303
249	3/11/1975	14:00:00	22.810	4.8293
250	2/13/1978	0:00:00	22.738	4.7949
251	1/8/1974	3:00:00	22.699	4.7763
252	11/12/2003	9:00:00	22.582	4.7207
253	1/7/1974	18:00:00	22.534	4.6979
254	3/5/1978	8:00:00	22.515	4.6889
255	2/23/2005	1:00:00	22.460	4.6628
256	3/16/1986	22:00:00	22.456	4.6609
257	1/29/1983	2:00:00	22.411	4.6396
258	1/11/2001	8:00:00	22.320	4.5966
259	11/24/1978	13:00:00	22.179	4.5301
260	2/21/1980	5:00:00	22.039	4.4643
261	12/4/1974	11:00:00	22.027	4.4587
262	11/8/2004	1:00:00	22.015	4.4531
263	12/29/1976	14:00:00	22.009	4.4503
264	12/27/1984	19:00:00	21.990	4.4414
265	12/9/1996	19:00:00	21.957	4.4259
266	2/21/1980	1:00:00	21.876	4.3881
267	8/17/1977	4:00:00	21.795	4.3503
268	2/20/1980	18:00:00	21.572	4.2466
269	12/11/1984	11:00:00	21.453	4.1916
270	10/20/1979	16:00:00	21.404	4.1690
271	2/10/1978	4:00:00	21.375	4.1556
272	1/25/1995	23:00:00	21.372	4.1542
273	12/18/1984	19:00:00	21.351	4.1446
274	11/25/1985	4:00:00	21.342	4.1404
275	1/15/1978	1:00:00	21.285	4.1142
276	2/7/1978	19:00:00	21.270	4.1073
277	1/27/2008	3:00:00	21.053	4.0079
278	3/11/1986	2:00:00	20.989	3.9786
279	2/18/1980	4:00:00	20.931	3.9522
280	1/29/1980	23:00:00	20.866	3.9227
281	1/29/1980	5:00:00	20.864	3.9217
282	1/31/1996	22:00:00	20.861	3.9204
283	1/28/1980	22:00:00	20.831	3.9068
284	4/20/1983	12:00:00	20.766	3.8773
285	12/6/1986	18:00:00	20.761	3.8750
286	2/22/1998	17:00:00	20.751	3.8705
287	12/19/1978	9:00:00	20.728	3.8601
288	1/27/1983	13:00:00	20.720	3.8564
289	1/5/1992	16:00:00	20.707	3.8506

240	11/12/2003	6:00:00	15.798	1.812
241	2/7/1976	5:00:00	15.706	1.778
242	4/5/2006	2:00:00	15.639	1.754
243	2/28/2006	0:00:00	15.491	1.699
244	1/16/1993	9:00:00	15.448	1.684
245	3/11/2006	3:00:00	15.445	1.683
246	11/11/1985	11:00:00	15.429	1.677
247	1/27/1983	11:00:00	15.424	1.675
248	1/10/1995	20:00:00	15.330	1.641
249	3/2/1992	17:00:00	15.299	1.630
250	1/4/2005	4:00:00	15.255	1.614
251	2/26/1983	15:00:00	15.242	1.609
252	12/28/2004	19:00:00	15.236	1.607
253	11/12/2003	9:00:00	15.171	1.584
254	2/23/2005	1:00:00	15.126	1.568
255	3/5/1978	8:00:00	15.113	1.563
256	1/29/1980	5:00:00	14.988	1.518
257	1/15/1993	16:00:00	14.916	1.493
258	3/26/1991	3:00:00	14.906	1.490
259	2/21/1980	1:00:00	14.897	1.486
260	11/24/1978	13:00:00	14.818	1.459
261	9/25/1986	6:00:00	14.795	1.451
262	2/5/1978	15:00:00	14.793	1.450
263	2/15/1986	11:00:00	14.714	1.422
264	12/25/2003	20:00:00	14.689	1.414
265	1/15/1978	1:00:00	14.671	1.407
266	2/7/1976	4:00:00	14.643	1.398
267	11/25/1985	4:00:00	14.598	1.382
268	1/31/1979	15:00:00	14.413	1.319
269	1/8/1974	3:00:00	14.342	1.295
270	1/27/1983	13:00:00	14.275	1.272
271	1/11/2001	8:00:00	14.256	1.266
272	3/2/1978	10:00:00	14.252	1.264
273	2/14/1995	10:00:00	14.218	1.253
274	2/15/1986	8:00:00	14.214	1.252
275	2/19/2007	16:00:00	14.176	1.239
276	12/29/1976	14:00:00	14.138	1.226
277	12/4/1974	11:00:00	14.129	1.223
278	2/15/1986	7:00:00	14.091	1.211
279	11/25/1985	1:00:00	14.067	1.203
280	2/19/2007	12:00:00	14.061	1.201
281	1/7/1993	16:00:00	14.059	1.200
282	2/12/2005	16:00:00	14.058	1.200
283	11/4/1987	23:00:00	14.050	1.197
284	3/6/1980	5:00:00	14.041	1.194
285	1/29/1980	9:00:00	13.976	1.173
286	3/5/1978	5:00:00	13.971	1.171
287	2/12/2005	8:00:00	13.921	1.155
288	2/13/1992	6:00:00	13.800	1.115
289	1/7/1974	18:00:00	13.763	1.103

290	3/24/1983	4:00:00	20.674	3.8356
291	3/16/1986	17:00:00	20.536	3.7734
292	1/16/1978	23:00:00	20.517	3.7649
293	12/18/1984	17:00:00	20.501	3.7577
294	1/29/1980	13:00:00	20.488	3.7518
295	3/5/1978	5:00:00	20.466	3.7419
296	3/2/1978	10:00:00	20.461	3.7397
297	11/24/1978	7:00:00	20.435	3.7280
298	1/4/1987	19:00:00	20.420	3.7213
299	10/19/2004	18:00:00	20.391	3.7083
300	12/7/1992	13:00:00	20.377	3.7020
301	1/18/1979	18:00:00	20.375	3.7011
302	4/20/1983	11:00:00	20.294	3.6649
303	1/6/1979	3:00:00	20.250	3.6452
304	11/4/1987	23:00:00	20.236	3.6390
305	1/3/2005	10:00:00	20.074	3.5669
306	3/11/2006	13:00:00	20.047	3.5549
307	1/11/1980	1:00:00	19.949	3.5115
308	2/19/2007	16:00:00	19.945	3.5097
309	3/2/1981	2:00:00	19.847	3.4665
310	2/1/1996	3:00:00	19.709	3.4058
311	2/7/1998	16:00:00	19.663	3.3856
312	2/12/2005	16:00:00	19.660	3.3843
313	10/20/1979	15:00:00	19.635	3.3734
314	1/7/1993	16:00:00	19.628	3.3703
315	1/19/1980	3:00:00	19.621	3.3672
316	3/1/1991	11:00:00	19.616	3.3650
317	1/14/1990	4:00:00	19.613	3.3637
318	3/5/1978	16:00:00	19.595	3.3559
319	1/7/2008	3:00:00	19.473	3.3026
320	1/29/1980	9:00:00	19.451	3.2931
321	12/18/1978	23:00:00	19.430	3.2839
322	2/12/2005	8:00:00	19.367	3.2566
323	3/26/1991	3:00:00	19.298	3.2267
324	2/11/1978	12:00:00	19.251	3.2063
325	12/20/2002	17:00:00	19.182	3.1765
326	1/28/2005	17:00:00	19.123	3.1511
327	3/1/1991	6:00:00	19.095	3.1391
328	2/22/2008	7:00:00	19.018	3.1060
329	12/5/2004	15:00:00	18.959	3.0808
330	2/8/1993	21:00:00	18.888	3.0504
331	11/23/1973	3:00:00	18.839	3.0296
332	12/3/1983	17:00:00	18.826	3.0240
333	8/17/1977	2:00:00	18.800	3.0130
334	2/27/1996	23:00:00	18.781	3.0049
335	3/11/1995	7:00:00	18.721	2.9794
336	3/24/1994	23:00:00	18.687	2.9650
337	1/12/1993	16:00:00	18.631	2.9413
338	2/6/1976	7:00:00	18.493	2.8831
339	1/29/1980	4:00:00	18.482	2.8785

290	3/5/1978	16:00:00	13.746	1.098
291	3/11/1995	7:00:00	13.703	1.084
292	2/7/1998	16:00:00	13.700	1.083
293	11/11/1978	22:00:00	13.632	1.061
294	1/29/1980	4:00:00	13.600	1.051
295	1/7/1993	8:00:00	13.587	1.047
296	3/11/2006	13:00:00	13.557	1.037
297	1/2/2006	16:00:00	13.453	1.004
298	1/11/2005	6:00:00	13.442	1.001
299	2/18/1980	4:00:00	13.354	0.973
300	12/19/1978	9:00:00	13.334	0.967
301	4/20/1983	12:00:00	13.308	0.959
302	1/15/1993	19:00:00	13.238	0.937
303	2/5/1978	18:00:00	13.149	0.910
304	1/9/2005	23:00:00	13.141	0.908
305	10/20/1979	14:00:00	13.119	0.901
306	1/7/1993	5:00:00	13.109	0.898
307	1/4/1987	19:00:00	13.080	0.889
308	2/14/1995	12:00:00	13.039	0.877
309	1/29/1980	21:00:00	13.038	0.876
310	1/15/1993	14:00:00	13.021	0.871
311	2/22/2005	22:00:00	13.019	0.871
312	12/4/1987	22:00:00	13.011	0.868
313	12/7/1992	13:00:00	13.011	0.868
314	3/24/1998	17:00:00	12.989	0.862
315	2/20/1980	18:00:00	12.974	0.857
316	3/11/1975	14:00:00	12.966	0.855
317	1/11/2005	7:00:00	12.944	0.848
318	1/29/1980	2:00:00	12.934	0.845
319	11/24/1978	7:00:00	12.887	0.831
320	11/20/1983	11:00:00	12.887	0.831
321	3/2/1981	2:00:00	12.879	0.829
322	3/22/2005	23:00:00	12.869	0.826
323	3/2/1983	16:00:00	12.837	0.816
324	1/31/1996	22:00:00	12.832	0.815
325	3/16/1986	23:00:00	12.801	0.806
326	1/7/1993	6:00:00	12.760	0.794
327	3/16/1986	17:00:00	12.713	0.780
328	5/8/1977	23:00:00	12.629	0.755
329	1/5/1992	20:00:00	12.603	0.748
330	4/5/2006	1:00:00	12.582	0.742
331	1/6/1993	22:00:00	12.566	0.737
332	12/7/1992	15:00:00	12.535	0.728
333	2/20/1980	5:00:00	12.500	0.718
334	1/5/1992	19:00:00	12.490	0.716
335	2/13/1978	0:00:00	12.482	0.713
336	12/18/1978	23:00:00	12.473	0.711
337	1/16/1993	12:00:00	12.405	0.691
338	3/11/1986	2:00:00	12.396	0.689
339	11/23/1973	3:00:00	12.387	0.686

340	3/11/1978	23:00:00	18.477	2.8764
341	3/1/1991	5:00:00	18.276	2.7922
342	1/11/2005	2:00:00	18.225	2.7710
343	10/19/2004	19:00:00	18.211	2.7651
344	3/10/1980	18:00:00	18.064	2.7041
345	4/7/1978	5:00:00	18.001	2.6781
346	1/6/1992	12:00:00	17.992	2.6744
347	3/2/1983	16:00:00	17.919	2.6443
348	3/10/1986	21:00:00	17.893	2.6337
349	11/4/1987	19:00:00	17.865	2.6222
350	2/5/1978	18:00:00	17.837	2.6107
351	12/29/2004	6:00:00	17.732	2.5677
352	4/2/1974	6:00:00	17.673	2.5437
353	1/15/1993	19:00:00	17.634	2.5278
354	1/12/1993	19:00:00	17.479	2.4650
355	1/29/1980	2:00:00	17.443	2.4505
356	1/7/1993	8:00:00	17.439	2.4489
357	3/5/1995	15:00:00	17.429	2.4449
358	1/9/2005	23:00:00	17.308	2.3962
359	1/4/1974	21:00:00	17.271	2.3814
360	11/24/1978	3:00:00	17.214	2.3586
361	1/13/1993	21:00:00	17.188	2.3483
362	3/1/1978	6:00:00	17.086	2.3077
363	2/22/2005	22:00:00	17.077	2.3041
364	2/14/1995	12:00:00	17.058	2.2966
365	11/23/1973	0:00:00	16.928	2.2453
366	4/14/1998	17:00:00	16.845	2.2126
367	1/6/1993	22:00:00	16.555	2.0996
368	1/5/1978	22:00:00	16.548	2.0969
369	3/1/1983	15:00:00	16.518	2.0853
370	12/17/1978	23:00:00	16.499	2.0780
371	12/11/1984	10:00:00	16.380	2.0322
372	4/5/2006	1:00:00	16.355	2.0227
373	2/20/1980	5:00:00	16.353	2.0219
374	1/9/1978	19:00:00	16.215	1.9692
375	12/27/1984	4:00:00	16.188	1.9590
376	11/24/1984	22:00:00	16.159	1.9480
377	2/21/2005	7:00:00	16.078	1.9173
378	1/14/1990	5:00:00	15.918	1.8572
379	12/25/2003	20:00:00	15.878	1.8422
380	2/11/2003	17:00:00	15.764	1.7998
381	12/7/1992	15:00:00	15.722	1.7843
382	12/6/1998	7:00:00	15.558	1.7238
383	2/28/2006	2:00:00	15.547	1.7198
384	1/26/1997	3:00:00	15.407	1.6687
385	10/27/2004	15:00:00	15.309	1.6332
386	1/11/2001	7:00:00	15.222	1.6019
387	1/10/1995	21:00:00	15.146	1.5747
388	2/2/1998	16:00:00	15.035	1.5351
389	3/5/1981	18:00:00	15.011	1.5266

340	4/20/1988	9:00:00	12.339	0.673
341	1/3/2005	10:00:00	12.298	0.662
342	2/28/2006	2:00:00	12.295	0.661
343	4/2/1974	6:00:00	12.241	0.646
344	4/28/2005	23:00:00	12.209	0.637
345	2/5/1976	2:00:00	12.178	0.628
346	3/19/1981	23:00:00	12.172	0.627
347	1/5/1992	18:00:00	12.168	0.626
348	2/6/1976	7:00:00	12.149	0.621
349	12/17/2002	17:00:00	12.094	0.606
350	2/23/1998	17:00:00	12.084	0.603
351	1/4/1974	20:00:00	12.079	0.602
352	2/26/2004	17:00:00	12.063	0.597
353	1/6/1979	3:00:00	12.033	0.589
354	1/25/1995	21:00:00	11.994	0.579
355	1/16/1993	13:00:00	11.983	0.576
356	11/8/2004	1:00:00	11.957	0.569
357	2/12/2005	11:00:00	11.942	0.565
358	12/5/2004	15:00:00	11.937	0.564
359	2/27/1983	6:00:00	11.926	0.561
360	3/1/1991	12:00:00	11.851	0.541
361	2/7/1978	19:00:00	11.842	0.539
362	1/7/1993	2:00:00	11.789	0.525
363	2/20/1993	7:00:00	11.777	0.522
364	1/16/1978	23:00:00	11.769	0.520
365	12/27/1984	19:00:00	11.761	0.518
366	4/20/1983	11:00:00	11.755	0.516
367	1/11/2005	2:00:00	11.723	0.508
368	1/12/1993	19:00:00	11.693	0.500
369	9/25/1986	7:00:00	11.688	0.499
370	1/7/2008	5:00:00	11.679	0.497
371	3/10/1986	21:00:00	11.632	0.485
372	11/25/1985	10:00:00	11.561	0.467
373	1/5/1992	17:00:00	11.529	0.459
374	1/11/1980	1:00:00	11.526	0.458
375	3/3/1983	7:00:00	11.524	0.458
376	3/1/1978	6:00:00	11.519	0.456
377	1/6/1992	12:00:00	11.511	0.454
378	3/6/1980	8:00:00	11.458	0.441
379	1/12/2001	13:00:00	11.441	0.437
380	11/25/1985	9:00:00	11.428	0.434
381	2/28/2006	8:00:00	11.419	0.432
382	2/7/1998	18:00:00	11.399	0.427
383	12/9/1996	19:00:00	11.393	0.425
384	12/4/1974	13:00:00	11.382	0.423
385	12/11/1984	10:00:00	11.378	0.422
386	2/1/1996	5:00:00	11.366	0.419
387	3/2/1983	22:00:00	11.336	0.412
388	1/26/1997	3:00:00	11.334	0.411
389	12/27/1984	4:00:00	11.319	0.408

390	1/6/1993	14:00:00	14.903	1.4885
391	3/12/1995	0:00:00	14.744	1.4328
392	1/31/1996	21:00:00	14.644	1.3981
393	2/7/1978	18:00:00	14.538	1.3616
394	11/29/1985	15:00:00	14.391	1.3114
395	10/31/1987	18:00:00	14.358	1.3002
396	12/19/1978	7:00:00	14.293	1.2782
397	1/11/2005	6:00:00	14.279	1.2735
398	1/14/1978	19:00:00	14.245	1.2621
399	2/5/1976	17:00:00	14.225	1.2554
400	2/12/2005	11:00:00	14.136	1.2256
401	2/5/1976	3:00:00	14.026	1.1891
402	2/15/1986	9:00:00	13.816	1.1204
403	2/20/1993	7:00:00	13.757	1.1013
404	1/11/2005	7:00:00	13.755	1.1006
405	1/7/2008	5:00:00	13.703	1.0839
406	9/25/1986	7:00:00	13.535	1.0302
407	1/18/1979	8:00:00	13.472	1.0103
408	1/7/1993	5:00:00	13.438	0.9996
409	1/16/1993	12:00:00	13.414	0.9921
410	1/5/1992	15:00:00	13.343	0.9699
411	5/2/1980	0:00:00	13.265	0.9458
412	3/16/1986	23:00:00	13.265	0.9458
413	11/25/1985	10:00:00	13.159	0.9132
414	3/1/1981	5:00:00	13.158	0.9129
415	3/2/1992	10:00:00	13.105	0.8967
416	1/7/1993	6:00:00	13.095	0.8937
417	3/6/1980	8:00:00	13.060	0.8830
418	1/27/1983	9:00:00	13.053	0.8809
419	2/8/1976	17:00:00	13.047	0.8791
420	1/16/1993	13:00:00	12.993	0.8628
421	11/21/2004	8:00:00	12.963	0.8538
422	1/6/1979	4:00:00	12.899	0.8347
423	3/6/1975	12:00:00	12.844	0.8183
424	2/2/1983	15:00:00	12.828	0.8136
425	11/25/1985	9:00:00	12.817	0.8104
426	1/5/1992	20:00:00	12.773	0.7974
427	2/28/2006	8:00:00	12.767	0.7956
428	2/7/1998	15:00:00	12.677	0.7693
429	12/4/1974	13:00:00	12.649	0.7612
430	1/5/1992	19:00:00	12.613	0.7508
431	12/17/1987	7:00:00	12.581	0.7416
432	3/1/1991	2:00:00	12.544	0.7310
433	3/2/1983	22:00:00	12.533	0.7278
434	3/3/1983	5:00:00	12.503	0.7193
435	12/30/1981	15:00:00	12.497	0.7175
436	1/5/1992	18:00:00	12.425	0.6971
437	1/5/1992	17:00:00	12.398	0.6895
438	9/3/1976	17:00:00	12.393	0.6881
439	3/3/1983	9:00:00	12.383	0.6853

390	3/3/1983	4:00:00	11.294	0.402
391	12/30/1981	15:00:00	11.281	0.398
392	3/10/1980	18:00:00	11.278	0.398
393	10/14/2006	0:00:00	11.270	0.396
394	1/4/1974	21:00:00	11.256	0.393
395	11/24/1984	22:00:00	11.202	0.380
396	3/3/1983	3:00:00	11.185	0.376
397	1/18/1979	18:00:00	11.155	0.369
398	3/5/1995	14:00:00	11.143	0.366
399	2/28/1983	2:00:00	11.142	0.366
400	2/22/1998	17:00:00	11.141	0.366
401	2/21/2005	7:00:00	11.132	0.363
402	4/7/1978	5:00:00	11.121	0.361
403	1/10/2005	1:00:00	11.117	0.360
404	2/22/2008	7:00:00	11.107	0.358
405	1/7/1993	22:00:00	11.062	0.347
406	10/19/2004	14:00:00	11.052	0.345
407	1/10/1995	21:00:00	11.033	0.341
408	2/2/1998	16:00:00	11.019	0.338
409	2/10/1978	4:00:00	10.995	0.332
410	1/7/1993	20:00:00	10.983	0.330
411	12/29/2004	3:00:00	10.949	0.322
412	2/8/1993	21:00:00	10.926	0.317
413	2/27/1996	23:00:00	10.916	0.315
414	1/12/1993	16:00:00	10.912	0.314
415	1/19/1980	3:00:00	10.898	0.311
416	2/5/1976	17:00:00	10.878	0.306
417	11/4/1987	19:00:00	10.846	0.299
418	11/25/1985	5:00:00	10.824	0.294
419	11/25/1983	0:00:00	10.817	0.293
420	1/14/1990	5:00:00	10.796	0.288
421	3/5/2005	2:00:00	10.787	0.286
422	3/6/1975	12:00:00	10.763	0.281
423	1/6/1993	23:00:00	10.747	0.278
424	2/22/2005	21:00:00	10.744	0.277
425	2/11/1978	12:00:00	10.735	0.275
426	3/12/1995	0:00:00	10.717	0.272
427	1/14/1993	1:00:00	10.689	0.266
428	12/7/1992	20:00:00	10.682	0.264
429	12/17/1978	23:00:00	10.678	0.263
430	2/12/2005	7:00:00	10.667	0.261
431	3/24/1994	23:00:00	10.659	0.259
432	1/9/2005	9:00:00	10.624	0.252
433	1/7/1993	11:00:00	10.612	0.250
434	11/11/1985	13:00:00	10.595	0.246
435	1/13/1993	1:00:00	10.561	0.239
436	2/22/2005	20:00:00	10.544	0.236
437	3/2/1983	2:00:00	10.527	0.232
438	2/7/1998	15:00:00	10.523	0.232
439	3/24/1983	4:00:00	10.487	0.224

440	12/11/1984	8:00:00	12.292	0.6599
441	2/28/1983	2:00:00	12.214	0.6383
442	1/25/1995	21:00:00	12.201	0.6348
443	1/7/2005	14:00:00	12.146	0.6197
444	3/3/1983	3:00:00	12.143	0.6189
445	2/13/1998	16:00:00	12.107	0.6091
446	1/7/1993	2:00:00	12.073	0.5999
447	1/10/2005	1:00:00	12.016	0.5846
448	1/13/1993	23:00:00	11.890	0.5512
449	3/12/1986	14:00:00	11.879	0.5483
450	1/12/2001	13:00:00	11.870	0.5459
451	3/12/1986	13:00:00	11.849	0.5404
452	10/19/2004	14:00:00	11.846	0.5396
453	1/7/1993	22:00:00	11.820	0.5329
454	3/8/1975	13:00:00	11.777	0.5217
455	1/9/2005	9:00:00	11.769	0.5196
456	1/12/1995	14:00:00	11.736	0.5111
457	1/7/1993	20:00:00	11.615	0.4803
458	3/25/1994	0:00:00	11.576	0.4705
459	2/22/2005	21:00:00	11.531	0.4593
460	12/29/2004	3:00:00	11.520	0.4566
461	2/1/1996	5:00:00	11.511	0.4543
462	2/22/2005	20:00:00	11.434	0.4354
463	2/12/2005	7:00:00	11.425	0.4332
464	1/15/1993	13:00:00	11.383	0.4230
465	4/29/1980	1:00:00	11.302	0.4035
466	4/20/1983	10:00:00	11.285	0.3994
467	11/25/1985	5:00:00	11.257	0.3928
468	1/10/1980	12:00:00	11.220	0.3840
469	1/6/1993	23:00:00	11.214	0.3826
470	11/11/1985	13:00:00	11.136	0.3644
471	3/12/1986	12:00:00	11.127	0.3623
472	3/5/2005	2:00:00	11.121	0.3609
473	2/7/1998	18:00:00	11.119	0.3605
474	1/26/1997	9:00:00	11.018	0.3374
475	11/24/1984	23:00:00	11.002	0.3338
476	1/13/1993	1:00:00	10.978	0.3284
477	1/14/1993	1:00:00	10.946	0.3213
478	10/20/2004	17:00:00	10.852	0.3006
479	12/7/1992	20:00:00	10.829	0.2956
480	4/26/1994	18:00:00	10.814	0.2923
481	11/1/1974	23:00:00	10.657	0.2590
482	1/7/1993	11:00:00	10.653	0.2582
483	3/1/1991	12:00:00	10.618	0.2509
484	1/26/1997	8:00:00	10.599	0.2470
485	1/12/1993	20:00:00	10.476	0.2222
486	2/21/2005	6:00:00	10.452	0.2175
487	3/2/1983	2:00:00	10.438	0.2147
488	1/17/1993	5:00:00	10.389	0.2052
489	3/26/1975	4:00:00	10.249	0.1787

440	1/26/1997	9:00:00	10.480	0.223
441	12/20/2002	17:00:00	10.471	0.221
442	3/1/1991	2:00:00	10.462	0.219
443	1/6/1979	4:00:00	10.451	0.217
444	2/19/2006	5:00:00	10.441	0.215
445	1/15/1978	5:00:00	10.424	0.212
446	12/17/1987	7:00:00	10.391	0.206
447	1/17/1993	5:00:00	10.386	0.205
448	11/29/1985	15:00:00	10.380	0.203
449	3/2/1983	5:00:00	10.375	0.203
450	1/14/1990	4:00:00	10.367	0.201
451	1/28/1980	22:00:00	10.338	0.195
452	3/11/1978	23:00:00	10.327	0.193
453	1/10/1995	23:00:00	10.319	0.192
454	1/9/1978	19:00:00	10.318	0.192
455	1/11/2001	7:00:00	10.189	0.168
456	12/16/1987	21:00:00	10.188	0.168
457	1/7/2008	6:00:00	10.129	0.157
458	2/5/1976	3:00:00	10.114	0.154
459	2/19/2007	17:00:00	10.102	0.152
460	1/6/1993	14:00:00	10.092	0.150
461	3/2/1983	21:00:00	10.061	0.145
462	2/2/1983	15:00:00	10.008	0.136
463	1/13/1993	23:00:00	9.975	0.130
464	3/5/1995	23:00:00	9.959	0.128
465	11/24/1984	23:00:00	9.958	0.128
466	1/8/1974	5:00:00	9.953	0.127
467	11/4/1987	22:00:00	9.934	0.124
468	1/26/1997	8:00:00	9.933	0.124
469	1/12/1993	20:00:00	9.931	0.123
470	11/24/1978	3:00:00	9.929	0.123
471	3/5/1978	12:00:00	9.916	0.121
472	1/31/1996	23:00:00	9.900	0.118
473	3/5/1978	6:00:00	9.880	0.115
474	2/8/1976	23:00:00	9.852	0.110
475	12/16/1987	19:00:00	9.847	0.110
476	12/19/1978	7:00:00	9.835	0.108
477	1/12/1993	23:00:00	9.822	0.106
478	1/11/1980	10:00:00	9.818	0.105
479	1/8/1974	4:00:00	9.804	0.103
480	2/12/2005	14:00:00	9.793	0.101
481	2/28/2006	10:00:00	9.770	0.098
482	1/12/1995	14:00:00	9.752	0.095
483	2/19/1993	18:00:00	9.750	0.095
484	3/4/1978	22:00:00	9.719	0.090
485	1/11/1980	8:00:00	9.714	0.089
486	1/28/2005	17:00:00	9.712	0.089
487	3/26/1991	4:00:00	9.693	0.086
488	1/5/1978	22:00:00	9.687	0.085
489	2/20/1980	6:00:00	9.656	0.081

490	1/6/1993	16:00:00	10.243	0.1776
491	11/4/1987	22:00:00	10.192	0.1683
492	3/6/1994	21:00:00	10.169	0.1641
493	1/31/1996	23:00:00	10.158	0.1622
494	12/27/1984	3:00:00	10.143	0.1595
495	2/27/1983	7:00:00	10.103	0.1524
496	1/10/1995	23:00:00	10.102	0.1522
497	3/2/1983	5:00:00	10.045	0.1423
498	3/16/1986	0:00:00	9.979	0.1311
499	2/18/2005	6:00:00	9.815	0.1046
500	1/2/2006	16:00:00	9.765	0.0969
501	3/20/1981	5:00:00	9.749	0.0945
502	1/25/1995	12:00:00	9.655	0.0807
503	12/16/1987	21:00:00	9.635	0.0779
504	12/28/1977	9:00:00	9.569	0.0687
505	2/17/1997	21:00:00	9.549	0.0660
506	3/4/2005	23:00:00	9.482	0.0572
507	4/20/1988	12:00:00	9.473	0.0561
508	12/28/1984	0:00:00	9.463	0.0548
509	2/22/2008	8:00:00	9.427	0.0504
510	9/25/1986	5:00:00	9.425	0.0501
511	1/12/1993	23:00:00	9.418	0.0493
512	12/29/1991	18:00:00	9.407	0.0479
513	12/27/1984	20:00:00	9.404	0.0476
514	1/7/2008	6:00:00	9.400	0.0471
515	3/28/1979	10:00:00	9.346	0.0407
516	12/30/1981	14:00:00	9.322	0.0380
517	2/19/2007	17:00:00	9.309	0.0366
518	1/8/1974	4:00:00	9.302	0.0358
519	2/6/1976	2:00:00	9.213	0.0265
520	3/2/1983	21:00:00	9.210	0.0262
521	1/8/1974	5:00:00	9.163	0.0217
522	12/16/1987	19:00:00	9.154	0.0209
523	1/7/1974	19:00:00	9.146	0.0201
524	2/14/1978	0:00:00	9.110	0.0170
525	11/11/1985	12:00:00	9.077	0.0142
526	2/13/1978	23:00:00	9.045	0.0117
527	3/5/1978	6:00:00	9.020	0.0099
528	2/11/1978	13:00:00	8.939	0.0047
529	1/15/1978	5:00:00	8.929	0.0041
530	12/7/1992	11:00:00	8.928	0.0041
531	1/7/1974	16:00:00	8.911	0.0032
532	3/5/1978	12:00:00	8.909	0.0031
533	3/13/1996	2:00:00	8.890	0.0022
534	2/19/1980	17:00:00	8.869	0.0014
535	2/21/2005	5:00:00	8.863	0.0011
536	12/5/2004	16:00:00	8.861	0.0011
537	12/19/1987	18:00:00	8.847	0.0006

490	12/28/1984	0:00:00	9.654	0.081
491	3/4/1978	21:00:00	9.651	0.080
492	3/6/1995	1:00:00	9.638	0.078
493	3/1/1991	4:00:00	9.631	0.077
494	1/5/1974	11:00:00	9.619	0.076
495	12/30/1981	14:00:00	9.614	0.075
496	1/14/1978	21:00:00	9.596	0.072
497	3/6/1995	0:00:00	9.593	0.072
498	12/3/1983	17:00:00	9.591	0.072
499	3/13/1996	10:00:00	9.576	0.070
500	2/13/1998	16:00:00	9.531	0.064
501	1/8/1974	7:00:00	9.517	0.062
502	1/5/1974	10:00:00	9.508	0.061
503	3/25/1994	0:00:00	9.473	0.056
504	2/19/1993	21:00:00	9.461	0.055
505	1/17/1978	2:00:00	9.457	0.054
506	2/15/1986	12:00:00	9.452	0.053
507	1/6/1993	16:00:00	9.452	0.053
508	1/14/1978	19:00:00	9.443	0.052
509	1/7/1974	19:00:00	9.427	0.050
510	1/27/1983	9:00:00	9.413	0.049
511	3/2/1978	11:00:00	9.396	0.047
512	12/16/1987	18:00:00	9.390	0.046
513	3/1/1991	3:00:00	9.390	0.046
514	1/9/1980	17:00:00	9.386	0.045
515	2/27/1983	20:00:00	9.358	0.042
516	3/25/1994	2:00:00	9.353	0.042
517	1/5/1974	3:00:00	9.344	0.041
518	2/21/1980	3:00:00	9.339	0.040
519	11/25/1985	8:00:00	9.338	0.040
520	2/7/1998	19:00:00	9.313	0.037
521	3/1/1991	13:00:00	9.297	0.035
522	4/14/1998	17:00:00	9.281	0.034
523	1/11/2001	10:00:00	9.277	0.033
524	1/11/1980	11:00:00	9.274	0.033
525	3/12/1986	14:00:00	9.269	0.032
526	11/24/1978	15:00:00	9.268	0.032
527	2/15/1986	10:00:00	9.267	0.032
528	11/12/2003	10:00:00	9.266	0.032
529	3/20/1981	5:00:00	9.262	0.032
530	2/2/1998	18:00:00	9.262	0.032
531	11/24/1978	12:00:00	9.254	0.031
532	3/2/1983	6:00:00	9.246	0.030
533	2/20/1980	0:00:00	9.238	0.029
534	2/11/2003	17:00:00	9.236	0.029
535	4/20/1988	12:00:00	9.230	0.028
536	3/2/1992	16:00:00	9.217	0.027
537	1/15/1978	0:00:00	9.215	0.027
538	10/19/2004	15:00:00	9.213	0.027
539	3/10/1975	18:00:00	9.196	0.025

540	2/14/1978	0:00:00	9.187	0.024
541	1/16/1993	14:00:00	9.172	0.023
542	4/18/1995	15:00:00	9.164	0.022
543	2/9/1976	0:00:00	9.157	0.021
544	12/29/2004	5:00:00	9.147	0.020
545	3/16/1986	0:00:00	9.135	0.019
546	1/15/1993	20:00:00	9.126	0.018
547	2/13/1998	18:00:00	9.122	0.018
548	3/2/1992	10:00:00	9.101	0.016
549	1/31/1996	21:00:00	9.101	0.016
550	2/2/1983	16:00:00	9.093	0.016
551	1/10/2005	0:00:00	9.087	0.015
552	3/11/1995	6:00:00	9.082	0.015
553	3/4/1983	5:00:00	9.079	0.014
554	1/18/1993	10:00:00	9.066	0.013
555	1/15/1993	21:00:00	9.056	0.013
556	12/5/2004	16:00:00	9.047	0.012
557	1/16/1993	3:00:00	9.040	0.011
558	1/11/2001	9:00:00	9.023	0.010
559	3/2/1978	6:00:00	9.021	0.010
560	1/7/1993	17:00:00	9.020	0.010
561	1/7/1993	23:00:00	9.016	0.010
562	1/15/1993	17:00:00	9.007	0.009
563	3/5/1981	18:00:00	9.006	0.009
564	1/7/1993	21:00:00	9.002	0.009
565	3/4/1978	20:00:00	8.993	0.008
566	1/17/1978	1:00:00	8.990	0.008
567	2/28/1991	17:00:00	8.976	0.007
568	1/29/1980	12:00:00	8.975	0.007
569	1/15/1993	18:00:00	8.973	0.007
570	2/23/2005	2:00:00	8.963	0.006
571	1/14/1993	5:00:00	8.940	0.005
572	2/8/1976	20:00:00	8.933	0.004
573	3/1/1978	10:00:00	8.933	0.004
574	1/7/1993	9:00:00	8.932	0.004
575	1/31/1979	11:00:00	8.912	0.003
576	1/14/1993	4:00:00	8.905	0.003
577	3/1/1978	14:00:00	8.898	0.003
578	10/10/1986	2:00:00	8.887	0.002
579	3/1/1981	13:00:00	8.880	0.002
580	2/7/1976	8:00:00	8.869	0.001
581	2/12/2005	3:00:00	8.841	0.000
582	1/7/1993	1:00:00	8.839	0.000
583	10/29/1974	6:00:00	8.819	0.000

ΣW_{POST} : 3311

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	5585
(b) ΣW_{POST} :	3311
(c) $S_{\text{Y}_{\text{RUSLE}}}$:	0.754
(d) $S_{\text{Y}_{\text{NHD}}}$:	0.036

E_p :	0.593	[(b)/(a)]
S_p :	0.539	[(c)]

E_p / S_p :	1.100
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 2B - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		16.395		cfs
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	379.983	254.543
2	2/20/1980	19:00:00	364.968	242.379
3	10/22/1976	17:00:00	301.879	191.906
4	9/10/1976	10:00:00	266.377	164.042
5	10/31/1987	19:00:00	245.158	147.613
6	2/7/1998	17:00:00	243.940	146.675
7	10/22/1976	16:00:00	234.211	139.211
8	1/9/2005	21:00:00	233.383	138.578
9	1/29/1980	7:00:00	221.554	129.567
10	2/2/1998	17:00:00	217.338	126.372
11	2/6/1992	20:00:00	216.157	125.479
12	10/18/2004	13:00:00	214.300	124.075
13	10/20/2004	12:00:00	209.542	120.488
14	2/13/1998	17:00:00	203.598	116.025
15	2/19/1993	16:00:00	198.495	112.208
16	1/31/1979	14:00:00	184.181	101.587
17	3/1/1983	16:00:00	181.466	99.587
18	1/9/2005	20:00:00	179.453	98.108
19	8/17/1977	3:00:00	171.099	91.998
20	3/2/1983	18:00:00	163.947	86.808
21	2/21/2005	14:00:00	159.351	83.493
22	2/15/1992	15:00:00	157.170	81.926
23	3/6/1975	11:00:00	154.280	79.856
24	4/18/1995	12:00:00	149.816	76.672
25	3/3/1983	1:00:00	145.019	73.271
26	2/20/1980	20:00:00	144.530	72.925
27	2/18/1980	5:00:00	141.954	71.109
28	3/4/1978	18:00:00	141.864	71.045
29	10/27/2004	5:00:00	141.696	70.927
30	2/16/1980	20:00:00	141.512	70.798
31	1/31/1979	16:00:00	140.677	70.210
32	1/31/1979	13:00:00	139.428	69.334
33	1/18/1993	6:00:00	138.095	68.399
34	12/4/1974	12:00:00	137.486	67.973
35	2/12/2003	17:00:00	134.542	65.918
36	1/31/1979	8:00:00	133.980	65.527
37	2/25/2003	17:00:00	132.252	64.326
38	1/13/1993	22:00:00	131.490	63.797
39	1/9/1980	13:00:00	131.173	63.577
40	10/10/1986	0:00:00	130.406	63.046

Work Calculations, Post-Development Conditions				
Low flow Threshold:		16.395		cfs
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	2/20/1980	19:00:00	366.407	243.542
2	10/22/1976	17:00:00	314.040	201.547
3	1/31/1979	14:00:00	239.750	143.455
4	1/29/1980	7:00:00	233.370	138.568
5	1/31/1979	16:00:00	199.999	113.331
6	3/3/1983	1:00:00	183.425	101.030
7	1/31/1979	13:00:00	183.010	100.724
8	3/2/1983	18:00:00	173.600	93.822
9	2/21/2005	14:00:00	171.320	92.159
10	1/9/2005	21:00:00	167.385	89.297
11	3/3/1983	6:00:00	166.536	88.682
12	1/4/1978	21:00:00	163.564	86.531
13	10/20/2004	16:00:00	162.780	85.964
14	2/20/1980	20:00:00	156.194	81.226
15	10/20/2004	15:00:00	153.682	79.429
16	3/5/1995	20:00:00	142.130	71.233
17	10/20/2004	13:00:00	136.233	67.097
18	1/29/1980	20:00:00	131.940	64.110
19	10/27/2004	10:00:00	131.167	63.573
20	10/27/2004	14:00:00	130.006	62.770
21	12/29/2004	4:00:00	123.958	58.606
22	9/10/1976	10:00:00	122.222	57.420
23	2/15/1986	6:00:00	121.046	56.618
24	2/23/2005	4:00:00	120.436	56.203
25	3/5/1995	17:00:00	118.944	55.188
26	10/27/2004	8:00:00	118.007	54.553
27	2/7/1998	17:00:00	114.217	51.994
28	1/15/1978	4:00:00	113.351	51.412
29	1/11/1980	13:00:00	113.075	51.227
30	1/29/1980	18:00:00	112.252	50.675
31	2/9/1976	1:00:00	112.119	50.586
32	2/18/1980	9:00:00	111.200	49.971
33	10/31/1987	19:00:00	110.402	49.438
34	1/31/1979	12:00:00	110.117	49.248
35	10/27/2004	9:00:00	108.403	48.106
36	1/11/2005	5:00:00	106.499	46.844
37	3/2/1983	19:00:00	106.300	46.712
38	2/2/1998	17:00:00	103.048	44.569
39	10/20/2004	14:00:00	102.664	44.317
40	3/5/1995	18:00:00	102.349	44.110

41	3/3/1983	6:00:00	127.965	61.360
42	10/28/1974	12:00:00	126.343	60.243
43	10/20/2004	16:00:00	122.354	57.510
44	10/20/2004	15:00:00	122.186	57.395
45	10/20/2004	13:00:00	122.000	57.268
46	10/28/1974	11:00:00	121.891	57.194
47	2/16/1998	17:00:00	117.778	54.398
48	10/19/2004	8:00:00	115.511	52.866
49	2/15/1986	4:00:00	113.698	51.645
50	3/21/1983	5:00:00	111.222	49.986
51	1/11/2005	4:00:00	110.255	49.340
52	2/23/2005	4:00:00	105.255	46.022
53	1/25/1995	19:00:00	105.211	45.992
54	3/16/1986	21:00:00	105.077	45.904
55	3/5/1995	20:00:00	103.925	45.145
56	3/5/1995	17:00:00	103.010	44.544
57	10/27/2004	14:00:00	102.805	44.409
58	1/27/2008	2:00:00	101.742	43.712
59	2/10/1978	6:00:00	100.254	42.740
60	12/29/2004	4:00:00	100.044	42.603
61	2/10/1978	5:00:00	99.944	42.538
62	1/15/1978	4:00:00	99.719	42.391
63	12/25/2003	19:00:00	99.006	41.927
64	2/21/2005	11:00:00	98.735	41.751
65	1/11/1980	13:00:00	98.567	41.642
66	12/28/1977	8:00:00	98.096	41.336
67	2/15/1986	6:00:00	97.913	41.218
68	2/9/1976	1:00:00	97.552	40.984
69	2/8/1976	22:00:00	97.527	40.968
70	10/27/2004	8:00:00	97.360	40.859
71	2/8/1976	21:00:00	97.130	40.711
72	1/14/1978	20:00:00	96.182	40.098
73	2/18/1980	9:00:00	95.817	39.862
74	1/29/1980	20:00:00	95.181	39.453
75	2/13/1978	11:00:00	94.803	39.209
76	2/19/1980	22:00:00	94.660	39.117
77	1/31/1979	12:00:00	94.502	39.016
78	12/18/1988	14:00:00	94.479	39.001
79	3/1/1983	17:00:00	93.596	38.435
80	3/2/1983	19:00:00	93.579	38.424
81	1/10/1978	8:00:00	93.537	38.397
82	1/8/1998	17:00:00	93.060	38.091
83	1/11/2005	5:00:00	92.936	38.012
84	2/19/1980	16:00:00	92.908	37.994
85	3/1/1981	14:00:00	92.613	37.805
86	1/11/1980	7:00:00	92.602	37.798
87	3/2/1983	17:00:00	92.359	37.643
88	2/15/1986	5:00:00	92.047	37.444
89	2/16/1980	19:00:00	91.969	37.394
90	2/27/1978	22:00:00	91.940	37.376

41	10/22/1976	16:00:00	101.456	43.525
42	3/5/1995	19:00:00	101.218	43.369
43	10/20/2004	12:00:00	99.750	42.412
44	2/6/1992	20:00:00	99.137	42.013
45	10/18/2004	13:00:00	98.080	41.326
46	2/13/1998	17:00:00	96.872	40.543
47	10/27/2004	7:00:00	91.234	36.926
48	2/19/1993	16:00:00	89.511	35.832
49	3/5/1995	22:00:00	86.252	33.777
50	3/1/1991	9:00:00	85.545	33.335
51	3/1/1991	7:00:00	85.290	33.176
52	8/17/1977	3:00:00	84.834	32.890
53	1/9/2005	20:00:00	84.015	32.380
54	3/1/1983	16:00:00	83.435	32.020
55	3/5/1995	21:00:00	81.272	30.681
56	1/29/1980	19:00:00	80.928	30.469
57	1/8/1993	0:00:00	73.731	26.097
58	1/11/2005	8:00:00	72.695	25.479
59	1/7/1993	4:00:00	72.276	25.229
60	1/16/1993	11:00:00	71.507	24.773
61	1/15/1978	6:00:00	71.229	24.608
62	2/18/1980	6:00:00	71.128	24.548
63	2/18/1980	5:00:00	70.736	24.317
64	1/16/1993	10:00:00	70.602	24.237
65	2/15/1992	15:00:00	70.381	24.107
66	1/29/1980	23:00:00	69.141	23.378
67	1/29/1980	13:00:00	69.089	23.347
68	4/18/1995	12:00:00	68.984	23.286
69	3/1/1991	10:00:00	68.934	23.256
70	3/1/1991	8:00:00	68.763	23.156
71	2/21/1980	5:00:00	68.745	23.146
72	2/16/1980	20:00:00	68.197	22.825
73	3/6/1975	11:00:00	67.966	22.690
74	1/31/1979	8:00:00	67.826	22.609
75	12/29/2004	6:00:00	67.303	22.305
76	12/4/1974	12:00:00	67.291	22.298
77	1/31/1979	10:00:00	67.041	22.153
78	3/1/1978	11:00:00	67.038	22.151
79	3/4/1978	18:00:00	66.718	21.966
80	2/12/2003	17:00:00	65.472	21.246
81	10/28/1974	12:00:00	64.827	20.875
82	2/25/2003	17:00:00	64.522	20.700
83	1/18/1993	6:00:00	64.158	20.492
84	1/7/1993	3:00:00	63.981	20.391
85	1/9/1980	13:00:00	63.521	20.129
86	2/9/1976	3:00:00	62.240	19.402
87	1/13/1993	22:00:00	61.281	18.861
88	10/28/1974	11:00:00	60.253	18.285
89	10/10/1986	0:00:00	59.697	17.975
90	10/19/2004	8:00:00	59.221	17.710

91	10/27/2004	7:00:00	90.962	36.753
92	2/27/1983	19:00:00	90.825	36.665
93	2/28/1978	20:00:00	90.568	36.502
94	2/21/2005	13:00:00	88.462	35.168
95	12/25/1988	1:00:00	87.849	34.782
96	1/29/1980	18:00:00	87.701	34.688
97	10/20/2004	14:00:00	86.885	34.175
98	10/27/2004	10:00:00	86.856	34.157
99	3/27/1998	17:00:00	86.472	33.916
100	3/5/1995	18:00:00	85.829	33.513
101	1/16/1979	2:00:00	85.140	33.082
102	1/12/2001	12:00:00	85.117	33.067
103	10/28/1974	13:00:00	84.721	32.820
104	12/29/2004	2:00:00	84.696	32.804
105	1/7/2008	1:00:00	83.864	32.286
106	12/28/1977	13:00:00	83.147	31.841
107	4/15/1976	21:00:00	81.616	30.893
108	5/9/1977	0:00:00	81.024	30.528
109	10/27/2004	6:00:00	80.932	30.471
110	3/16/1986	11:00:00	80.547	30.235
111	9/10/1976	9:00:00	77.726	28.509
112	4/23/1980	4:00:00	76.457	27.739
113	1/6/2008	7:00:00	76.206	27.587
114	12/25/1988	0:00:00	74.405	26.502
115	2/1/1996	2:00:00	73.870	26.181
116	1/31/1979	6:00:00	73.775	26.124
117	1/17/1990	3:00:00	73.128	25.737
118	11/22/1996	3:00:00	72.252	25.215
119	12/18/1984	18:00:00	72.155	25.157
120	11/25/1985	7:00:00	71.326	24.665
121	12/18/1978	18:00:00	70.992	24.468
122	2/21/2005	12:00:00	70.464	24.156
123	3/1/1991	9:00:00	69.710	23.712
124	3/1/1991	7:00:00	69.366	23.510
125	3/5/2005	0:00:00	69.144	23.379
126	11/30/2007	23:00:00	69.071	23.337
127	3/5/1995	19:00:00	68.551	23.032
128	4/5/2006	7:00:00	67.681	22.525
129	3/5/1995	16:00:00	67.310	22.309
130	10/19/2004	16:00:00	66.544	21.865
131	10/27/2004	9:00:00	66.421	21.793
132	5/1/1978	5:00:00	65.451	21.234
133	3/15/1986	23:00:00	64.469	20.670
134	2/14/2001	17:00:00	61.745	19.122
135	2/8/1994	7:00:00	61.446	18.954
136	8/17/1977	1:00:00	60.496	18.421
137	1/18/1993	14:00:00	58.135	17.110
138	4/4/2006	23:00:00	58.091	17.086
139	3/11/1995	4:00:00	58.079	17.079
140	11/12/2003	7:00:00	58.029	17.052

91	2/23/2005	1:00:00	58.630	17.383
92	2/21/1980	1:00:00	58.425	17.270
93	10/27/2004	15:00:00	58.044	17.060
94	10/19/2004	18:00:00	57.701	16.871
95	1/11/2005	4:00:00	57.184	16.587
96	2/16/1998	17:00:00	57.011	16.493
97	3/2/1978	10:00:00	56.466	16.196
98	2/12/2005	16:00:00	56.070	15.980
99	1/29/1980	9:00:00	55.959	15.920
100	10/27/2004	5:00:00	55.397	15.615
101	1/15/1978	3:00:00	55.384	15.608
102	10/19/2004	16:00:00	54.166	14.953
103	2/15/1986	4:00:00	53.807	14.760
104	3/16/1986	21:00:00	53.438	14.564
105	2/15/1986	9:00:00	52.683	14.163
106	2/8/1976	22:00:00	52.570	14.103
107	2/10/1978	6:00:00	52.445	14.037
108	1/25/1995	19:00:00	52.361	13.992
109	3/1/1991	11:00:00	52.236	13.926
110	2/8/1976	21:00:00	52.177	13.896
111	10/19/2004	19:00:00	51.306	13.438
112	3/1/1991	6:00:00	51.071	13.315
113	1/14/1978	20:00:00	50.192	12.857
114	2/21/2005	11:00:00	50.014	12.765
115	12/4/1974	13:00:00	49.727	12.617
116	1/27/2008	2:00:00	49.492	12.495
117	2/10/1978	5:00:00	49.456	12.477
118	3/2/1983	17:00:00	49.285	12.389
119	2/19/1980	22:00:00	49.198	12.344
120	3/1/1983	17:00:00	48.998	12.242
121	3/1/1981	14:00:00	48.734	12.106
122	1/11/1980	12:00:00	48.711	12.095
123	1/7/1993	8:00:00	48.655	12.066
124	10/28/1974	13:00:00	48.532	12.003
125	12/25/2003	19:00:00	48.418	11.945
126	1/11/1980	7:00:00	48.317	11.893
127	2/21/2005	13:00:00	48.170	11.818
128	2/15/1986	5:00:00	47.760	11.610
129	2/27/1983	19:00:00	47.652	11.556
130	1/9/2005	23:00:00	47.558	11.508
131	2/28/1978	20:00:00	47.201	11.328
132	3/21/1983	5:00:00	46.296	10.873
133	2/13/1978	11:00:00	46.224	10.838
134	1/10/1978	8:00:00	45.972	10.712
135	5/9/1977	0:00:00	45.832	10.642
136	12/25/1988	1:00:00	45.372	10.414
137	1/8/1998	17:00:00	44.881	10.172
138	1/12/2001	12:00:00	44.010	9.746
139	11/25/1985	10:00:00	43.987	9.735
140	2/27/1978	22:00:00	43.906	9.695

141	1/11/2005	8:00:00	57.623	16.828
142	2/8/1983	7:00:00	56.956	16.463
143	1/7/1993	4:00:00	56.794	16.374
144	1/29/1983	1:00:00	56.380	16.149
145	1/7/1993	3:00:00	56.330	16.121
146	2/8/1983	6:00:00	56.022	15.954
147	1/17/1978	3:00:00	55.983	15.933
148	3/12/1978	2:00:00	55.781	15.823
149	1/15/1978	6:00:00	55.677	15.767
150	1/15/1978	3:00:00	55.581	15.715
151	1/16/1993	11:00:00	55.539	15.692
152	3/18/1983	23:00:00	55.476	15.658
153	3/12/1978	1:00:00	55.472	15.656
154	1/11/2005	3:00:00	55.460	15.649
155	1/9/2005	5:00:00	55.325	15.576
156	12/28/2004	22:00:00	55.131	15.472
157	2/18/1980	6:00:00	54.876	15.334
158	1/15/1978	2:00:00	54.830	15.309
159	1/7/1993	0:00:00	54.633	15.203
160	2/23/2004	17:00:00	54.485	15.124
161	2/15/1986	3:00:00	54.463	15.112
162	1/16/1993	10:00:00	54.098	14.916
163	2/27/1983	18:00:00	54.072	14.902
164	1/11/1980	12:00:00	53.975	14.850
165	1/11/1980	9:00:00	53.776	14.744
166	3/11/2006	1:00:00	53.475	14.583
167	3/12/1978	0:00:00	53.122	14.396
168	3/5/2005	1:00:00	52.812	14.231
169	2/26/1983	15:00:00	52.533	14.083
170	12/23/1982	1:00:00	52.436	14.032
171	11/12/2003	6:00:00	52.399	14.013
172	3/1/1991	10:00:00	52.391	14.008
173	12/18/1984	16:00:00	52.284	13.952
174	3/1/1991	8:00:00	52.149	13.881
175	3/5/1995	21:00:00	51.664	13.625
176	3/5/1995	22:00:00	51.645	13.615
177	12/7/1992	17:00:00	51.366	13.469
178	2/1/1996	4:00:00	51.314	13.442
179	1/29/1980	19:00:00	51.180	13.372
180	2/11/2005	16:00:00	50.845	13.197
181	3/2/1992	15:00:00	50.667	13.104
182	3/1/1978	9:00:00	50.367	12.948
183	2/8/1976	19:00:00	50.342	12.935
184	3/1/1978	11:00:00	50.288	12.907
185	2/7/1976	4:00:00	50.217	12.870
186	1/5/1974	2:00:00	50.163	12.842
187	3/1/1978	8:00:00	50.046	12.782
188	1/12/1997	17:00:00	49.580	12.541
189	3/6/1980	5:00:00	49.479	12.489
190	1/5/1974	1:00:00	49.109	12.298

141	11/25/1985	9:00:00	43.696	9.593
142	12/29/2004	2:00:00	43.653	9.572
143	12/18/1988	14:00:00	43.356	9.428
144	2/16/1980	19:00:00	43.044	9.278
145	12/29/2004	3:00:00	43.033	9.273
146	12/28/1977	13:00:00	43.025	9.269
147	10/20/2004	17:00:00	42.488	9.011
148	1/16/1979	2:00:00	42.084	8.819
149	3/27/1998	17:00:00	41.935	8.748
150	3/3/1983	5:00:00	41.905	8.734
151	3/3/1983	9:00:00	41.753	8.662
152	12/18/1984	18:00:00	41.325	8.460
153	2/19/1980	16:00:00	41.120	8.363
154	2/21/2005	12:00:00	40.253	7.958
155	3/5/1995	16:00:00	40.150	7.910
156	1/11/2005	6:00:00	39.980	7.832
157	2/1/1996	2:00:00	39.919	7.803
158	1/7/2008	1:00:00	39.736	7.719
159	1/6/2008	7:00:00	39.608	7.660
160	1/11/2005	7:00:00	39.284	7.511
161	10/27/2004	6:00:00	39.277	7.508
162	1/7/1993	5:00:00	39.198	7.472
163	1/7/1993	6:00:00	38.730	7.259
164	1/16/1993	12:00:00	38.686	7.239
165	3/16/1986	11:00:00	38.635	7.216
166	12/28/1977	8:00:00	38.582	7.192
167	9/10/1976	9:00:00	38.419	7.118
168	2/15/1986	11:00:00	38.318	7.072
169	4/15/1976	21:00:00	38.135	6.990
170	1/16/1993	13:00:00	38.129	6.987
171	11/22/1996	3:00:00	37.458	6.687
172	2/15/1986	8:00:00	37.368	6.647
173	1/31/1979	6:00:00	37.284	6.610
174	1/10/2005	1:00:00	37.080	6.520
175	2/15/1986	7:00:00	37.001	6.485
176	11/30/2007	23:00:00	36.540	6.282
177	3/2/1983	22:00:00	36.446	6.241
178	1/7/1993	22:00:00	36.337	6.193
179	1/7/1993	20:00:00	36.148	6.111
180	11/25/1985	7:00:00	36.111	6.095
181	3/3/1983	3:00:00	35.966	6.032
182	3/1/1991	12:00:00	35.735	5.932
183	12/25/1988	0:00:00	35.585	5.868
184	4/5/2006	7:00:00	35.513	5.837
185	1/7/1993	11:00:00	35.072	5.648
186	1/17/1990	3:00:00	35.016	5.624
187	3/12/1978	2:00:00	34.441	5.381
188	1/31/1979	15:00:00	34.382	5.356
189	1/17/1978	3:00:00	34.344	5.340
190	1/15/1978	2:00:00	34.214	5.285

191	1/31/1979	10:00:00	49.043	12.265
192	3/28/1979	21:00:00	48.749	12.114
193	2/8/1994	8:00:00	48.677	12.077
194	3/1/1978	7:00:00	48.656	12.066
195	2/14/1980	17:00:00	48.520	11.997
196	3/5/1995	13:00:00	48.371	11.921
197	11/11/1985	11:00:00	48.344	11.907
198	1/31/1979	9:00:00	48.188	11.828
199	2/28/2006	0:00:00	48.182	11.825
200	11/20/1983	12:00:00	48.168	11.817
201	2/9/1981	2:00:00	47.621	11.540
202	1/5/1974	0:00:00	47.583	11.521
203	3/5/1995	12:00:00	47.122	11.288
204	2/19/2007	13:00:00	46.999	11.226
205	2/19/1993	17:00:00	46.823	11.137
206	3/13/1996	9:00:00	46.773	11.112
207	1/10/1995	20:00:00	46.628	11.040
208	12/28/2004	19:00:00	46.585	11.018
209	3/6/1980	10:00:00	46.189	10.820
210	10/14/2006	0:00:00	46.168	10.810
211	12/4/1987	22:00:00	45.459	10.457
212	10/10/1986	4:00:00	45.254	10.356
213	2/13/1978	13:00:00	45.158	10.309
214	12/6/1986	18:00:00	44.080	9.780
215	1/4/2005	4:00:00	43.896	9.690
216	2/5/1978	15:00:00	43.509	9.503
217	1/31/1979	7:00:00	43.448	9.473
218	2/14/1995	11:00:00	43.234	9.370
219	2/9/1976	3:00:00	41.484	8.534
220	8/17/1977	4:00:00	41.310	8.452
221	12/7/1992	14:00:00	41.310	8.452
222	2/13/1992	6:00:00	41.088	8.348
223	10/20/1979	16:00:00	40.697	8.165
224	11/11/1978	22:00:00	40.501	8.074
225	4/28/2005	23:00:00	40.124	7.898
226	3/24/1998	17:00:00	39.965	7.825
227	1/27/1983	11:00:00	39.914	7.801
228	11/25/1985	1:00:00	39.568	7.642
229	1/29/1983	2:00:00	39.516	7.618
230	3/16/1986	22:00:00	39.474	7.599
231	2/7/1976	5:00:00	39.183	7.465
232	1/4/1974	23:00:00	38.838	7.308
233	12/18/1984	19:00:00	37.921	6.894
234	10/20/1979	15:00:00	37.879	6.875
235	3/11/2006	3:00:00	37.786	6.834
236	12/11/1984	11:00:00	37.629	6.764
237	1/4/1974	20:00:00	37.600	6.751
238	2/14/1995	10:00:00	37.574	6.739
239	1/27/2008	3:00:00	37.497	6.705
240	3/22/2005	23:00:00	37.342	6.636

191	1/11/1980	9:00:00	33.903	5.155
192	1/7/1993	0:00:00	33.725	5.081
193	3/12/1978	1:00:00	33.636	5.045
194	2/12/2005	14:00:00	33.479	4.980
195	8/17/1977	1:00:00	33.416	4.954
196	2/19/1993	21:00:00	33.059	4.807
197	1/29/1980	21:00:00	33.047	4.802
198	2/7/1998	18:00:00	32.937	4.758
199	1/11/2005	3:00:00	32.901	4.743
200	3/5/2005	0:00:00	32.773	4.691
201	1/18/1993	14:00:00	32.696	4.659
202	12/18/1978	18:00:00	32.629	4.632
203	3/1/1978	9:00:00	32.521	4.589
204	2/8/1983	7:00:00	32.394	4.538
205	11/25/1985	8:00:00	32.367	4.526
206	3/5/1995	13:00:00	32.329	4.511
207	3/1/1978	8:00:00	32.308	4.503
208	2/1/1996	4:00:00	32.248	4.479
209	12/29/2004	5:00:00	32.108	4.422
210	1/5/1974	2:00:00	32.052	4.400
211	1/16/1993	9:00:00	31.914	4.345
212	1/5/1974	1:00:00	31.596	4.219
213	1/31/1979	9:00:00	31.596	4.219
214	3/5/1995	12:00:00	31.482	4.174
215	3/5/2005	1:00:00	31.139	4.040
216	3/1/1978	7:00:00	30.934	3.960
217	1/5/1974	0:00:00	30.889	3.943
218	1/15/1978	5:00:00	30.874	3.936
219	2/8/1976	19:00:00	30.287	3.711
220	8/17/1977	4:00:00	30.181	3.670
221	3/28/1979	21:00:00	30.168	3.666
222	2/20/1980	6:00:00	30.121	3.648
223	3/12/1978	0:00:00	30.081	3.632
224	1/5/1974	11:00:00	29.748	3.507
225	2/14/2001	17:00:00	29.722	3.497
226	10/20/1979	16:00:00	29.629	3.462
227	1/5/1974	10:00:00	29.515	3.420
228	3/15/1986	23:00:00	29.373	3.367
229	1/5/1974	3:00:00	29.126	3.275
230	1/9/2005	5:00:00	29.093	3.263
231	3/2/1978	11:00:00	28.963	3.215
232	12/28/2004	22:00:00	28.920	3.199
233	2/9/1976	0:00:00	28.604	3.084
234	1/31/1979	7:00:00	28.571	3.072
235	1/29/1980	12:00:00	28.334	2.987
236	12/7/1992	17:00:00	28.231	2.950
237	1/31/1979	11:00:00	28.172	2.929
238	2/19/1993	17:00:00	28.030	2.878
239	3/1/1978	10:00:00	27.961	2.854
240	2/13/1978	13:00:00	27.940	2.846

241	4/20/1988	9:00:00	37.296	6.616
242	4/5/2006	2:00:00	37.281	6.609
243	1/25/1995	23:00:00	37.277	6.607
244	11/20/1983	11:00:00	36.844	6.416
245	9/25/1986	6:00:00	36.685	6.346
246	2/5/1976	2:00:00	36.656	6.333
247	8/17/1977	2:00:00	36.577	6.299
248	1/5/1992	16:00:00	36.569	6.295
249	12/18/1984	17:00:00	36.535	6.280
250	1/16/1993	9:00:00	36.460	6.247
251	2/27/1983	6:00:00	36.392	6.218
252	2/19/2007	12:00:00	36.350	6.199
253	1/15/1993	16:00:00	36.148	6.111
254	1/15/1993	14:00:00	36.127	6.102
255	3/19/1981	23:00:00	36.101	6.091
256	12/17/2002	17:00:00	35.955	6.028
257	1/8/1993	0:00:00	35.873	5.992
258	3/2/1992	17:00:00	35.829	5.973
259	11/25/1983	0:00:00	35.766	5.946
260	2/23/1998	17:00:00	35.636	5.890
261	2/26/2004	17:00:00	35.636	5.890
262	3/11/1975	14:00:00	35.614	5.880
263	2/13/1978	0:00:00	35.497	5.830
264	1/8/1974	3:00:00	35.444	5.807
265	11/12/2003	9:00:00	35.261	5.729
266	1/7/1974	18:00:00	35.186	5.697
267	3/5/1978	8:00:00	35.156	5.684
268	2/23/2005	1:00:00	35.068	5.646
269	3/1/1991	11:00:00	35.019	5.625
270	1/11/2001	8:00:00	34.845	5.551
271	11/24/1978	13:00:00	34.625	5.458
272	1/7/2008	3:00:00	34.605	5.450
273	11/8/2004	1:00:00	34.431	5.377
274	2/21/1980	5:00:00	34.414	5.369
275	12/29/1976	14:00:00	34.396	5.362
276	12/4/1974	11:00:00	34.391	5.360
277	12/27/1984	19:00:00	34.384	5.357
278	12/9/1996	19:00:00	34.342	5.339
279	10/19/2004	18:00:00	34.236	5.295
280	1/29/1980	5:00:00	34.224	5.290
281	2/21/1980	1:00:00	34.159	5.262
282	3/1/1991	6:00:00	34.139	5.254
283	3/26/1991	3:00:00	33.793	5.110
284	2/20/1980	18:00:00	33.692	5.068
285	2/1/1996	3:00:00	33.668	5.058
286	2/10/1978	4:00:00	33.386	4.941
287	11/25/1985	4:00:00	33.323	4.916
288	1/15/1978	1:00:00	33.230	4.877
289	2/7/1978	19:00:00	33.204	4.867
290	3/11/1986	2:00:00	32.793	4.699

241	4/23/1980	4:00:00	27.906	2.834
242	3/1/1978	14:00:00	27.884	2.826
243	2/8/1976	23:00:00	27.795	2.795
244	12/6/1986	18:00:00	27.688	2.757
245	2/27/1983	18:00:00	27.628	2.736
246	3/3/1983	7:00:00	27.628	2.736
247	2/8/1983	6:00:00	27.556	2.711
248	10/20/1979	15:00:00	27.537	2.704
249	11/12/2003	7:00:00	27.447	2.673
250	3/16/1986	22:00:00	27.439	2.670
251	12/18/1984	19:00:00	27.272	2.612
252	3/3/1983	4:00:00	27.190	2.584
253	2/8/1994	8:00:00	27.067	2.541
254	3/2/1992	15:00:00	26.767	2.439
255	2/23/2004	17:00:00	26.722	2.424
256	5/1/1978	5:00:00	26.650	2.399
257	4/4/2006	23:00:00	26.625	2.391
258	3/6/1980	10:00:00	26.571	2.373
259	12/18/1984	16:00:00	26.559	2.368
260	2/19/2007	13:00:00	26.455	2.334
261	1/25/1995	23:00:00	26.433	2.326
262	2/8/1994	7:00:00	26.363	2.303
263	10/10/1986	4:00:00	26.180	2.242
264	12/11/1984	11:00:00	26.097	2.214
265	1/4/1974	23:00:00	26.083	2.210
266	2/9/1981	2:00:00	26.058	2.201
267	1/29/1983	1:00:00	25.793	2.115
268	8/17/1977	2:00:00	25.763	2.105
269	1/7/1993	16:00:00	25.703	2.085
270	2/7/1998	19:00:00	25.648	2.068
271	3/13/1996	9:00:00	25.635	2.063
272	3/11/1995	4:00:00	25.533	2.030
273	1/27/2008	3:00:00	25.503	2.021
274	1/16/1993	14:00:00	25.447	2.003
275	1/10/2005	0:00:00	25.331	1.966
276	2/14/1980	17:00:00	25.277	1.948
277	3/18/1983	23:00:00	25.267	1.945
278	3/2/1983	21:00:00	25.244	1.938
279	2/14/1995	11:00:00	25.229	1.933
280	1/7/1993	17:00:00	25.141	1.905
281	1/7/1993	23:00:00	25.095	1.891
282	1/7/1993	21:00:00	25.061	1.880
283	11/20/1983	12:00:00	25.010	1.864
284	3/5/1995	15:00:00	24.982	1.855
285	1/7/1993	9:00:00	24.947	1.844
286	2/23/2005	2:00:00	24.891	1.827
287	2/1/1996	3:00:00	24.847	1.813
288	3/1/1991	5:00:00	24.828	1.807
289	12/7/1992	14:00:00	24.756	1.785
290	1/7/2008	3:00:00	24.698	1.766

291	2/18/1980	4:00:00	32.686	4.655
292	10/19/2004	19:00:00	32.686	4.655
293	1/28/1980	22:00:00	32.585	4.615
294	1/29/1980	23:00:00	32.585	4.615
295	1/31/1996	22:00:00	32.566	4.607
296	2/22/1998	17:00:00	32.427	4.551
297	4/20/1983	12:00:00	32.418	4.547
298	12/19/1978	9:00:00	32.368	4.527
299	1/27/1983	13:00:00	32.356	4.522
300	3/1/1991	5:00:00	32.323	4.509
301	3/24/1983	4:00:00	32.304	4.501
302	3/16/1986	17:00:00	32.088	4.415
303	1/16/1978	23:00:00	32.053	4.401
304	3/5/1978	5:00:00	31.988	4.375
305	1/29/1980	13:00:00	31.985	4.374
306	3/2/1978	10:00:00	31.955	4.362
307	11/24/1978	7:00:00	31.915	4.346
308	1/4/1987	19:00:00	31.906	4.342
309	1/18/1979	18:00:00	31.828	4.311
310	12/7/1992	13:00:00	31.814	4.306
311	4/20/1983	11:00:00	31.683	4.254
312	1/6/1979	3:00:00	31.675	4.250
313	11/4/1987	23:00:00	31.591	4.217
314	3/5/1995	15:00:00	31.466	4.168
315	1/3/2005	10:00:00	31.351	4.123
316	3/11/2006	13:00:00	31.311	4.107
317	1/11/1980	1:00:00	31.150	4.044
318	2/19/2007	16:00:00	31.140	4.040
319	3/2/1981	2:00:00	31.025	3.995
320	2/12/2005	16:00:00	30.705	3.871
321	1/14/1990	4:00:00	30.698	3.869
322	2/7/1998	16:00:00	30.696	3.868
323	1/7/1993	16:00:00	30.679	3.861
324	1/19/1980	3:00:00	30.656	3.852
325	3/5/1978	16:00:00	30.629	3.842
326	1/29/1980	9:00:00	30.373	3.744
327	12/18/1978	23:00:00	30.357	3.738
328	2/12/2005	8:00:00	30.233	3.690
329	2/11/1978	12:00:00	30.101	3.640
330	12/20/2002	17:00:00	29.980	3.594
331	1/28/2005	17:00:00	29.930	3.575
332	2/22/2008	7:00:00	29.702	3.490
333	12/5/2004	15:00:00	29.610	3.455
334	2/8/1993	21:00:00	29.514	3.419
335	12/3/1983	17:00:00	29.468	3.402
336	11/23/1973	3:00:00	29.431	3.388
337	2/27/1996	23:00:00	29.338	3.354
338	3/11/1995	7:00:00	29.227	3.313
339	3/24/1994	23:00:00	29.208	3.306
340	1/12/1993	16:00:00	29.094	3.263

291	3/11/2006	1:00:00	24.570	1.727
292	3/5/1995	23:00:00	24.283	1.640
293	12/18/1984	17:00:00	24.242	1.627
294	2/15/1986	3:00:00	24.108	1.587
295	2/7/1976	5:00:00	24.042	1.567
296	2/15/1986	12:00:00	24.013	1.559
297	4/5/2006	2:00:00	23.870	1.516
298	1/29/1983	2:00:00	23.848	1.510
299	3/6/1995	1:00:00	23.810	1.498
300	12/29/2004	8:00:00	23.777	1.489
301	3/6/1995	0:00:00	23.737	1.477
302	1/4/2005	4:00:00	23.713	1.470
303	2/15/1986	10:00:00	23.651	1.452
304	3/11/2006	3:00:00	23.596	1.436
305	3/1/1991	13:00:00	23.562	1.426
306	1/27/1983	11:00:00	23.503	1.409
307	1/12/1997	17:00:00	23.481	1.402
308	3/2/1992	17:00:00	23.430	1.387
309	12/23/1982	1:00:00	23.318	1.355
310	2/7/1976	4:00:00	23.238	1.333
311	11/12/2003	9:00:00	23.210	1.325
312	2/11/2005	16:00:00	23.150	1.308
313	3/5/1978	8:00:00	23.127	1.301
314	1/15/1993	16:00:00	23.068	1.284
315	2/21/1980	3:00:00	22.934	1.247
316	1/29/1980	5:00:00	22.904	1.239
317	9/25/1986	6:00:00	22.898	1.237
318	11/24/1978	13:00:00	22.876	1.231
319	1/15/1978	1:00:00	22.655	1.170
320	1/5/1992	16:00:00	22.629	1.163
321	8/17/1977	7:00:00	22.591	1.152
322	10/28/1974	15:00:00	22.571	1.147
323	11/25/1985	4:00:00	22.519	1.133
324	10/28/1974	14:00:00	22.506	1.129
325	12/28/2004	19:00:00	22.405	1.102
326	1/8/1974	3:00:00	22.360	1.090
327	12/25/2003	20:00:00	22.235	1.056
328	8/17/1977	6:00:00	22.159	1.036
329	1/27/1983	13:00:00	22.127	1.028
330	1/11/2001	8:00:00	22.119	1.026
331	2/19/2007	16:00:00	22.013	0.998
332	11/12/2003	6:00:00	21.995	0.994
333	2/14/1995	10:00:00	21.972	0.988
334	11/4/1987	23:00:00	21.932	0.977
335	1/10/1995	20:00:00	21.838	0.953
336	11/11/1985	11:00:00	21.815	0.947
337	1/7/1974	18:00:00	21.748	0.930
338	2/12/2005	8:00:00	21.734	0.926
339	12/29/1976	14:00:00	21.707	0.919
340	12/4/1974	11:00:00	21.592	0.890

341	3/10/1986	21:00:00	29.069	3.254
342	3/11/1978	23:00:00	28.896	3.191
343	2/6/1976	7:00:00	28.884	3.186
344	1/29/1980	4:00:00	28.855	3.176
345	1/11/2005	2:00:00	28.512	3.051
346	3/10/1980	18:00:00	28.227	2.948
347	1/6/1992	12:00:00	28.149	2.921
348	12/25/2003	20:00:00	28.148	2.920
349	4/7/1978	5:00:00	28.117	2.909
350	3/2/1983	16:00:00	27.979	2.860
351	11/4/1987	19:00:00	27.906	2.834
352	2/5/1978	18:00:00	27.855	2.816
353	12/29/2004	6:00:00	27.683	2.755
354	1/7/1993	8:00:00	27.630	2.737
355	4/2/1974	6:00:00	27.592	2.723
356	1/15/1993	19:00:00	27.530	2.702
357	1/12/1993	19:00:00	27.317	2.628
358	1/29/1980	2:00:00	27.235	2.599
359	1/9/2005	23:00:00	27.026	2.527
360	1/4/1974	21:00:00	26.970	2.508
361	11/24/1978	3:00:00	26.895	2.482
362	1/13/1993	21:00:00	26.894	2.482
363	3/1/1978	6:00:00	26.708	2.419
364	2/22/2005	22:00:00	26.659	2.402
365	2/14/1995	12:00:00	26.628	2.392
366	11/23/1973	0:00:00	26.516	2.354
367	4/14/1998	17:00:00	26.347	2.297
368	1/5/1978	22:00:00	25.896	2.148
369	1/6/1993	22:00:00	25.846	2.132
370	3/1/1983	15:00:00	25.816	2.122
371	12/17/1978	23:00:00	25.797	2.116
372	2/20/1980	5:00:00	25.592	2.049
373	12/11/1984	10:00:00	25.572	2.043
374	4/5/2006	1:00:00	25.546	2.035
375	1/9/1978	19:00:00	25.357	1.974
376	12/27/1984	4:00:00	25.273	1.947
377	11/24/1984	22:00:00	25.229	1.933
378	2/21/2005	7:00:00	25.100	1.892
379	1/14/1990	5:00:00	24.852	1.814
380	2/11/2003	17:00:00	24.676	1.760
381	12/7/1992	15:00:00	24.542	1.719
382	10/27/2004	15:00:00	24.429	1.684
383	12/6/1998	7:00:00	24.351	1.660
384	2/28/2006	2:00:00	24.274	1.637
385	1/26/1997	3:00:00	24.055	1.571
386	1/11/2005	6:00:00	23.893	1.523
387	1/11/2001	7:00:00	23.767	1.486
388	1/10/1995	21:00:00	23.643	1.449
389	3/5/1981	18:00:00	23.497	1.407
390	2/2/1998	16:00:00	23.476	1.401

341	2/7/1998	16:00:00	21.554	0.881
342	3/5/1978	5:00:00	21.514	0.871
343	3/11/1995	7:00:00	21.446	0.854
344	2/19/2007	12:00:00	21.442	0.853
345	2/28/2006	0:00:00	21.396	0.841
346	1/29/1980	4:00:00	21.311	0.820
347	3/5/1978	16:00:00	21.277	0.812
348	3/11/2006	13:00:00	21.254	0.806
349	2/18/1980	4:00:00	21.196	0.792
350	12/19/1978	9:00:00	21.155	0.782
351	2/5/1978	15:00:00	21.124	0.775
352	3/26/1991	3:00:00	21.094	0.768
353	3/11/1975	14:00:00	21.002	0.745
354	11/11/1978	22:00:00	20.984	0.741
355	1/15/1993	19:00:00	20.880	0.717
356	1/11/1980	15:00:00	20.846	0.709
357	2/20/1980	18:00:00	20.796	0.697
358	4/20/1983	12:00:00	20.792	0.696
359	2/5/1978	18:00:00	20.734	0.682
360	2/14/1995	12:00:00	20.684	0.671
361	2/22/2005	22:00:00	20.635	0.660
362	2/18/1980	8:00:00	20.576	0.646
363	1/29/1980	2:00:00	20.528	0.635
364	2/13/1992	6:00:00	20.512	0.632
365	11/25/1985	1:00:00	20.479	0.624
366	3/2/1983	16:00:00	20.443	0.616
367	3/16/1986	17:00:00	20.373	0.600
368	3/2/1981	2:00:00	20.368	0.599
369	1/15/1993	14:00:00	20.355	0.596
370	3/16/1986	23:00:00	20.241	0.571
371	12/7/1992	13:00:00	20.235	0.570
372	2/26/1983	15:00:00	20.234	0.570
373	11/24/1978	7:00:00	20.154	0.552
374	1/6/1993	22:00:00	20.103	0.541
375	12/7/1992	15:00:00	20.066	0.533
376	12/18/1978	23:00:00	20.030	0.526
377	4/5/2006	1:00:00	19.979	0.515
378	1/4/1987	19:00:00	19.974	0.514
379	1/5/1992	20:00:00	19.939	0.506
380	2/7/1998	20:00:00	19.931	0.504
381	1/5/1992	19:00:00	19.811	0.479
382	1/31/1996	22:00:00	19.757	0.468
383	2/6/1976	7:00:00	19.735	0.464
384	2/28/2006	2:00:00	19.680	0.452
385	4/2/1974	6:00:00	19.641	0.444
386	2/20/1980	5:00:00	19.591	0.434
387	1/2/2006	16:00:00	19.473	0.411
388	1/5/1992	18:00:00	19.469	0.410
389	11/23/1973	3:00:00	19.452	0.407
390	3/11/1986	2:00:00	19.388	0.394

391	1/6/1993	14:00:00	23.284	1.346
392	3/12/1995	0:00:00	23.081	1.288
393	1/31/1996	21:00:00	22.922	1.244
394	1/11/2005	7:00:00	22.765	1.200
395	2/7/1978	18:00:00	22.758	1.198
396	1/7/1993	5:00:00	22.557	1.143
397	10/31/1987	18:00:00	22.478	1.122
398	11/29/1985	15:00:00	22.471	1.120
399	12/19/1978	7:00:00	22.376	1.094
400	1/14/1978	19:00:00	22.291	1.071
401	2/5/1976	17:00:00	22.252	1.061
402	2/12/2005	11:00:00	22.071	1.013
403	3/16/1986	23:00:00	22.052	1.008
404	2/5/1976	3:00:00	21.895	0.968
405	1/7/1993	6:00:00	21.794	0.942
406	1/16/1993	12:00:00	21.754	0.931
407	2/15/1986	9:00:00	21.569	0.884
408	2/20/1993	7:00:00	21.540	0.877
409	1/7/2008	5:00:00	21.405	0.844
410	1/5/1992	20:00:00	21.312	0.821
411	1/2/2006	16:00:00	21.155	0.782
412	9/25/1986	7:00:00	21.128	0.776
413	1/18/1979	8:00:00	21.094	0.768
414	1/5/1992	19:00:00	21.062	0.760
415	1/5/1992	15:00:00	20.893	0.720
416	1/5/1992	17:00:00	20.881	0.717
417	1/16/1993	13:00:00	20.820	0.703
418	1/5/1992	18:00:00	20.781	0.693
419	5/2/1980	0:00:00	20.765	0.690
420	3/1/1981	5:00:00	20.605	0.653
421	11/25/1985	10:00:00	20.543	0.639
422	3/2/1992	10:00:00	20.526	0.635
423	2/8/1976	17:00:00	20.430	0.613
424	3/6/1980	8:00:00	20.398	0.606
425	1/27/1983	9:00:00	20.386	0.603
426	11/21/2004	8:00:00	20.327	0.590
427	1/12/2001	13:00:00	20.230	0.569
428	1/6/1979	4:00:00	20.136	0.548
429	3/6/1975	12:00:00	20.045	0.529
430	2/2/1983	15:00:00	20.030	0.525
431	11/25/1985	9:00:00	20.010	0.521
432	1/25/1995	21:00:00	19.992	0.517
433	2/28/2006	8:00:00	19.944	0.507
434	2/7/1998	15:00:00	19.791	0.475
435	12/4/1974	13:00:00	19.741	0.465
436	12/17/1987	7:00:00	19.684	0.453
437	3/1/1991	2:00:00	19.601	0.436
438	3/2/1983	22:00:00	19.566	0.429
439	1/7/1993	2:00:00	19.544	0.425
440	3/3/1983	5:00:00	19.520	0.420

391	1/25/1995	21:00:00	19.245	0.366
392	2/12/2005	11:00:00	19.241	0.366
393	12/27/1984	19:00:00	19.016	0.324
394	9/25/1986	7:00:00	19.014	0.323
395	1/7/1993	2:00:00	19.006	0.322
396	10/20/1979	14:00:00	19.006	0.322
397	1/11/2005	2:00:00	18.970	0.315
398	1/7/2008	5:00:00	18.866	0.297
399	1/3/2005	10:00:00	18.862	0.296
400	1/12/2001	13:00:00	18.844	0.293
401	1/16/1978	23:00:00	18.817	0.288
402	3/1/1978	6:00:00	18.815	0.287
403	12/11/1984	10:00:00	18.766	0.279
404	1/6/1992	12:00:00	18.734	0.273
405	3/22/2005	23:00:00	18.678	0.264
406	2/20/1993	7:00:00	18.662	0.261
407	2/1/1996	5:00:00	18.601	0.251
408	12/5/2004	15:00:00	18.600	0.250
409	11/20/1983	11:00:00	18.590	0.249
410	1/12/1993	19:00:00	18.589	0.248
411	3/6/1980	8:00:00	18.584	0.248
412	1/26/1997	3:00:00	18.550	0.242
413	3/24/1998	17:00:00	18.531	0.239
414	2/28/2006	8:00:00	18.519	0.237
415	5/8/1977	23:00:00	18.469	0.229
416	12/30/1981	15:00:00	18.452	0.226
417	1/11/1980	1:00:00	18.445	0.225
418	1/5/1992	17:00:00	18.426	0.222
419	2/13/1978	0:00:00	18.362	0.211
420	2/2/1998	16:00:00	18.212	0.188
421	2/28/1983	2:00:00	18.205	0.187
422	3/5/1995	14:00:00	18.199	0.186
423	1/31/1979	23:00:00	18.166	0.181
424	2/11/1978	12:00:00	18.127	0.175
425	10/19/2004	14:00:00	18.088	0.169
426	11/24/1984	22:00:00	18.016	0.158
427	2/5/1976	2:00:00	18.005	0.157
428	12/27/1984	4:00:00	17.955	0.149
429	2/23/1998	17:00:00	17.954	0.149
430	11/25/1985	5:00:00	17.938	0.147
431	1/6/1979	3:00:00	17.920	0.145
432	4/20/1988	9:00:00	17.909	0.143
433	3/5/2005	2:00:00	17.908	0.143
434	3/6/1980	5:00:00	17.908	0.143
435	3/6/1975	12:00:00	17.901	0.142
436	2/5/1976	17:00:00	17.879	0.139
437	4/20/1983	11:00:00	17.871	0.138
438	2/22/2005	21:00:00	17.861	0.136
439	12/17/1978	23:00:00	17.858	0.136
440	1/6/1993	23:00:00	17.855	0.135

441	12/30/1981	15:00:00	19.512	0.419
442	9/3/1976	17:00:00	19.426	0.402
443	3/3/1983	9:00:00	19.336	0.384
444	12/11/1984	8:00:00	19.234	0.364
445	2/28/1983	2:00:00	19.077	0.335
446	1/7/2005	14:00:00	19.029	0.326
447	3/3/1983	3:00:00	18.963	0.314
448	2/13/1998	16:00:00	18.924	0.307
449	1/10/2005	1:00:00	18.759	0.278
450	10/20/1979	14:00:00	18.608	0.252
451	1/13/1993	23:00:00	18.556	0.243
452	10/20/2004	17:00:00	18.549	0.242
453	3/12/1986	14:00:00	18.544	0.241
454	10/19/2004	14:00:00	18.500	0.234
455	3/12/1986	13:00:00	18.498	0.233
456	1/7/1993	22:00:00	18.453	0.226
457	3/8/1975	13:00:00	18.448	0.225
458	2/1/1996	5:00:00	18.421	0.221
459	1/9/2005	9:00:00	18.374	0.213
460	1/12/1995	14:00:00	18.322	0.205
461	1/7/1993	20:00:00	18.138	0.176
462	3/25/1994	0:00:00	18.071	0.166
463	2/22/2005	21:00:00	18.000	0.156
464	2/7/1998	18:00:00	17.988	0.154
465	12/29/2004	3:00:00	17.978	0.153
466	3/1/1991	12:00:00	17.964	0.151
467	2/12/2005	7:00:00	17.865	0.137
468	2/22/2005	20:00:00	17.851	0.135
469	1/15/1993	13:00:00	17.783	0.126
470	4/29/1980	1:00:00	17.705	0.115
471	4/20/1983	10:00:00	17.678	0.112
472	1/10/1980	12:00:00	17.575	0.099
473	11/25/1985	5:00:00	17.570	0.098
474	1/6/1993	23:00:00	17.504	0.090
475	5/8/1977	23:00:00	17.474	0.086
476	11/11/1985	13:00:00	17.387	0.076
477	3/12/1986	12:00:00	17.384	0.076
478	3/5/2005	2:00:00	17.357	0.073
479	1/26/1997	9:00:00	17.201	0.056
480	11/24/1984	23:00:00	17.174	0.053
481	1/13/1993	1:00:00	17.143	0.050
482	1/14/1993	1:00:00	17.099	0.046
483	12/7/1992	20:00:00	16.909	0.028
484	4/26/1994	18:00:00	16.886	0.027
485	3/16/1986	0:00:00	16.774	0.018
486	11/1/1974	23:00:00	16.697	0.013
487	1/7/1993	11:00:00	16.642	0.010
488	1/26/1997	8:00:00	16.552	0.005

441	1/10/1995	21:00:00	17.743	0.120
442	1/9/2005	9:00:00	17.737	0.119
443	2/7/1998	15:00:00	17.726	0.118
444	2/8/1993	21:00:00	17.701	0.115
445	12/7/1992	20:00:00	17.694	0.114
446	3/12/1995	0:00:00	17.678	0.112
447	4/28/2005	23:00:00	17.666	0.110
448	1/14/1993	1:00:00	17.649	0.108
449	11/11/1985	13:00:00	17.635	0.106
450	10/29/1974	8:00:00	17.608	0.103
451	2/22/2005	20:00:00	17.606	0.103
452	2/21/2005	7:00:00	17.583	0.100
453	1/13/1993	1:00:00	17.554	0.096
454	1/26/1997	9:00:00	17.546	0.095
455	2/12/2005	7:00:00	17.518	0.092
456	2/26/2004	17:00:00	17.505	0.090
457	12/17/2002	17:00:00	17.502	0.090
458	3/1/1991	2:00:00	17.475	0.086
459	3/10/1986	21:00:00	17.428	0.081
460	2/27/1983	6:00:00	17.428	0.081
461	3/10/1980	18:00:00	17.363	0.073
462	2/7/1978	19:00:00	17.347	0.072
463	1/4/1974	21:00:00	17.304	0.067
464	3/2/1983	2:00:00	17.297	0.066
465	3/2/1978	13:00:00	17.273	0.063
466	1/10/1995	23:00:00	17.268	0.063
467	12/17/1987	7:00:00	17.267	0.063
468	1/29/1980	11:00:00	17.237	0.060
469	1/6/1979	4:00:00	17.235	0.059
470	1/13/1993	23:00:00	17.218	0.058
471	3/2/1983	5:00:00	17.185	0.054
472	3/2/1978	15:00:00	17.129	0.049
473	12/16/1987	21:00:00	17.101	0.046
474	1/7/2008	6:00:00	17.064	0.042
475	2/7/1998	21:00:00	17.057	0.042
476	2/19/2007	17:00:00	17.052	0.041
477	3/19/1981	23:00:00	17.048	0.041
478	11/8/2004	1:00:00	17.037	0.040
479	1/17/1993	5:00:00	17.031	0.039
480	11/29/1985	15:00:00	16.995	0.036
481	11/24/1984	23:00:00	16.994	0.036
482	2/7/1998	22:00:00	16.984	0.035
483	1/12/1993	20:00:00	16.935	0.031
484	1/18/1979	18:00:00	16.899	0.028
485	1/26/1997	8:00:00	16.891	0.027
486	11/4/1987	22:00:00	16.879	0.026
487	1/31/1996	23:00:00	16.859	0.024
488	1/8/1974	5:00:00	16.858	0.024
489	1/12/1995	14:00:00	16.825	0.022
490	4/7/1978	5:00:00	16.800	0.020

491	3/5/1978	6:00:00	16.788	0.019
492	1/8/1974	4:00:00	16.759	0.017
493	12/19/1978	7:00:00	16.758	0.017
494	3/5/1978	12:00:00	16.753	0.017
495	12/4/1987	22:00:00	16.749	0.016
496	12/16/1987	19:00:00	16.742	0.016
497	1/11/1980	10:00:00	16.719	0.014
498	2/5/1976	3:00:00	16.679	0.012
499	1/14/1990	5:00:00	16.675	0.011
500	1/11/1980	8:00:00	16.672	0.011
501	2/19/1993	18:00:00	16.643	0.010
502	1/12/1993	23:00:00	16.605	0.007
503	2/28/2006	10:00:00	16.573	0.006
504	3/4/1978	22:00:00	16.541	0.004
505	1/4/1974	20:00:00	16.535	0.004
506	1/6/1993	14:00:00	16.529	0.004
507	1/5/1978	22:00:00	16.518	0.003
508	1/14/1978	21:00:00	16.495	0.002
509	12/28/1984	0:00:00	16.488	0.002
510	3/13/1996	10:00:00	16.476	0.002
511	3/4/1978	21:00:00	16.450	0.001
512	3/1/1991	4:00:00	16.446	0.001
513	2/22/2008	7:00:00	16.436	0.001
514	11/4/1987	19:00:00	16.402	0.000

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	9573
(b) ΣW_{POST} :	5872
(c) S_{RUSLE} :	0.789
(d) S_{NHD} :	0.334

E_p :	0.613	[(b)/(a)]
S_p :	0.653	[(c)]

E_p / S_p :	0.9
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 3 - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		11.439 cfs		
Type of flow:		10% of Q ₂		
Notes:				
- Lower limit = upper limit = average flow = Q _{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q _{pre} (cfs)	W _{PRE}
1	1/4/1978	21:00:00	239.214	156.68
2	2/20/1980	19:00:00	219.332	140.80
3	10/22/1976	17:00:00	193.580	120.48
4	10/22/1976	16:00:00	161.215	95.45
5	9/10/1976	10:00:00	157.019	92.25
6	10/31/1987	19:00:00	151.239	87.87
7	2/7/1998	17:00:00	150.825	87.55
8	2/6/1992	20:00:00	144.803	83.02
9	1/9/2005	21:00:00	144.407	82.72
10	1/29/1980	7:00:00	137.650	77.66
11	2/19/1993	16:00:00	136.300	76.65
12	2/2/1998	17:00:00	132.784	74.04
13	10/20/2004	12:00:00	126.831	69.64
14	2/13/1998	17:00:00	124.587	68.00
15	10/18/2004	13:00:00	121.719	65.90
16	10/27/2004	5:00:00	121.664	65.86
17	3/6/1975	11:00:00	120.905	65.30
18	3/1/1983	16:00:00	114.799	60.86
19	1/31/1979	14:00:00	114.393	60.57
20	1/9/2005	20:00:00	113.300	59.78
21	3/2/1983	18:00:00	104.619	53.56
22	2/15/1992	15:00:00	102.388	51.98
23	2/21/2005	14:00:00	101.695	51.48
24	10/10/1986	0:00:00	100.171	50.41
25	8/17/1977	3:00:00	98.137	48.98
26	4/18/1995	12:00:00	96.367	47.73
27	12/4/1974	12:00:00	96.277	47.67
28	3/3/1983	1:00:00	94.340	46.32
29	1/18/1993	6:00:00	93.396	45.66
30	1/13/1993	22:00:00	92.638	45.13
31	12/28/1977	8:00:00	92.496	45.03
32	2/20/1980	20:00:00	91.960	44.66
33	3/4/1978	18:00:00	90.565	43.70
34	2/18/1980	5:00:00	90.352	43.55
35	2/15/1986	4:00:00	89.746	43.13
36	1/31/1979	16:00:00	89.453	42.93
37	4/23/1980	4:00:00	89.309	42.83
38	1/31/1979	13:00:00	88.513	42.28
39	2/16/1980	20:00:00	88.510	42.28
40	2/12/2003	17:00:00	87.040	41.2693
41	1/31/1979	8:00:00	84.923	39.8213
42	3/3/1983	6:00:00	84.176	39.3123
43	2/25/2003	17:00:00	81.394	37.4251

Work Calculations, Post-Development Conditions				
Low flow Threshold:		11.439 cfs		
Type of flow:		10% of Q ₂		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q _{post} (cfs)	W _{POST}
1	1/4/1978	21:00:00	183.628	112.72
2	2/20/1980	19:00:00	173.718	105.05
3	10/22/1976	17:00:00	152.078	88.50
4	10/22/1976	16:00:00	122.859	66.73
5	9/10/1976	10:00:00	121.136	65.47
6	2/7/1998	17:00:00	118.852	63.80
7	10/31/1987	19:00:00	116.862	62.36
8	1/9/2005	21:00:00	115.148	61.12
9	1/31/1979	14:00:00	114.440	60.60
10	2/6/1992	20:00:00	111.327	58.36
11	2/20/1980	20:00:00	110.188	57.54
12	1/29/1980	7:00:00	109.321	56.92
13	2/19/1993	16:00:00	105.121	53.92
14	2/2/1998	17:00:00	102.964	52.38
15	10/20/2004	12:00:00	100.423	50.59
16	1/31/1979	16:00:00	99.651	50.04
17	2/13/1998	17:00:00	96.579	47.88
18	10/20/2004	16:00:00	94.905	46.71
19	10/18/2004	13:00:00	93.008	45.39
20	3/6/1975	11:00:00	92.622	45.12
21	10/27/2004	5:00:00	91.516	44.355
22	3/1/1983	16:00:00	89.817	43.180
23	1/9/2005	20:00:00	88.600	42.341
24	3/3/1983	1:00:00	88.311	42.142
25	3/2/1983	18:00:00	85.129	39.962
26	3/3/1983	6:00:00	83.379	38.770
27	2/21/2005	14:00:00	82.049	37.868
28	10/20/2004	15:00:00	81.923	37.783
29	10/10/1986	0:00:00	76.730	34.294
30	8/17/1977	3:00:00	76.236	33.965
31	12/4/1974	12:00:00	75.888	33.733
32	1/31/1979	13:00:00	75.783	33.663
33	2/15/1992	15:00:00	75.278	33.328
34	4/18/1995	12:00:00	74.397	32.744
35	2/18/1980	5:00:00	73.207	31.957
36	1/18/1993	6:00:00	73.096	31.884
37	1/13/1993	22:00:00	72.990	31.814
38	12/28/1977	8:00:00	70.623	30.260
39	2/16/1980	20:00:00	70.269	30.029
40	3/4/1978	18:00:00	70.154	29.954
41	1/29/1980	20:00:00	69.897	29.786
42	2/15/1986	4:00:00	69.438	29.487
43	3/5/1995	20:00:00	69.012	29.210

44	1/9/1980	13:00:00	80.382	36.7421
45	2/16/1998	17:00:00	79.373	36.0631
46	3/5/2005	0:00:00	76.972	34.4552
47	10/20/2004	16:00:00	76.846	34.3711
48	5/1/1978	5:00:00	76.682	34.2617
49	10/20/2004	15:00:00	76.674	34.2564
50	10/20/2004	13:00:00	76.403	34.0758
51	10/27/2004	14:00:00	75.507	33.4797
52	2/15/1986	6:00:00	73.642	32.2443
53	1/11/2005	4:00:00	73.306	32.0225
54	11/25/1985	7:00:00	73.034	31.8432
55	10/27/2004	8:00:00	72.780	31.6758
56	12/29/2004	4:00:00	72.318	31.3718
57	2/23/2005	4:00:00	72.200	31.2942
58	2/15/1986	5:00:00	71.988	31.1549
59	10/28/1974	12:00:00	71.807	31.0361
60	3/16/1986	21:00:00	71.157	30.6099
61	12/29/2004	2:00:00	70.891	30.4357
62	10/27/2004	7:00:00	70.751	30.3441
63	1/25/1995	19:00:00	70.517	30.1912
64	10/19/2004	8:00:00	69.786	29.7140
65	2/21/2005	11:00:00	68.584	28.9322
66	11/22/1996	3:00:00	68.254	28.7182
67	11/12/2003	7:00:00	68.136	28.6417
68	3/21/1983	5:00:00	68.126	28.6352
69	3/11/1995	4:00:00	67.876	28.4733
70	4/4/2006	23:00:00	67.693	28.3549
71	10/27/2004	6:00:00	67.342	28.1280
72	10/28/1974	11:00:00	66.912	27.8504
73	1/8/1998	17:00:00	66.752	27.7473
74	12/28/1977	13:00:00	66.494	27.5810
75	2/10/1978	6:00:00	66.231	27.4118
76	2/27/1978	22:00:00	66.155	27.3629
77	2/10/1978	5:00:00	66.122	27.3417
78	1/27/2008	2:00:00	66.072	27.3095
79	3/1/1981	14:00:00	65.724	27.0860
80	3/5/1995	20:00:00	65.649	27.0378
81	12/25/2003	19:00:00	65.538	26.9666
82	1/15/1978	4:00:00	65.427	26.8954
83	2/19/1980	22:00:00	65.323	26.8287
84	2/18/1980	9:00:00	65.011	26.6289
85	10/27/2004	10:00:00	64.945	26.5866
86	2/13/1978	11:00:00	64.923	26.5725
87	3/5/1995	17:00:00	64.573	26.3487
88	1/29/1980	20:00:00	64.319	26.1865
89	1/11/1980	13:00:00	64.185	26.1009
90	2/27/1983	19:00:00	64.148	26.0773
91	3/1/1983	17:00:00	63.903	25.9211
92	3/2/1983	19:00:00	63.893	25.9148
93	4/5/2006	7:00:00	63.822	25.8695
94	3/2/1983	17:00:00	63.788	25.8479
95	2/15/1986	3:00:00	63.754	25.8262
96	12/28/2004	22:00:00	63.725	25.8077
97	3/27/1998	17:00:00	63.567	25.7071

44	2/12/2003	17:00:00	67.874	28.472
45	4/23/1980	4:00:00	66.813	27.787
46	1/31/1979	8:00:00	66.263	27.432
47	10/27/2004	14:00:00	65.141	26.712
48	3/2/1983	19:00:00	64.976	26.606
49	10/20/2004	13:00:00	63.706	25.796
50	2/25/2003	17:00:00	62.806	25.224
51	2/16/1998	17:00:00	62.060	24.751
52	1/9/1980	13:00:00	61.113	24.154
53	10/27/2004	10:00:00	60.878	24.006
54	2/15/1986	6:00:00	60.490	23.762
55	1/11/2005	4:00:00	60.194	23.576
56	12/29/2004	4:00:00	60.190	23.574
57	2/23/2005	4:00:00	60.071	23.499
58	10/27/2004	8:00:00	59.920	23.404
59	3/5/2005	0:00:00	59.918	23.403
60	10/20/2004	14:00:00	59.647	23.234
61	11/25/1985	7:00:00	58.713	22.651
62	5/1/1978	5:00:00	58.455	22.490
63	2/15/1986	5:00:00	58.101	22.270
64	12/29/2004	2:00:00	57.783	22.073
65	10/27/2004	7:00:00	57.362	21.812
66	1/11/1980	13:00:00	56.837	21.488
67	10/28/1974	12:00:00	56.140	21.059
68	1/29/1980	18:00:00	55.990	20.967
69	2/18/1980	9:00:00	55.358	20.579
70	3/16/1986	21:00:00	54.725	20.192
71	1/25/1995	19:00:00	54.653	20.148
72	1/15/1978	4:00:00	54.563	20.093
73	10/19/2004	8:00:00	54.361	19.970
74	3/5/1995	17:00:00	53.793	19.625
75	2/9/1976	1:00:00	53.687	19.561
76	2/19/1980	22:00:00	53.478	19.434
77	11/22/1996	3:00:00	53.360	19.362
78	1/11/2005	5:00:00	53.205	19.269
79	10/27/2004	6:00:00	53.084	19.196
80	11/12/2003	7:00:00	53.074	19.189
81	3/2/1983	17:00:00	53.046	19.173
82	3/1/1983	17:00:00	52.893	19.080
83	2/8/1976	22:00:00	52.828	19.041
84	1/31/1979	12:00:00	52.335	18.744
85	1/8/1998	17:00:00	52.187	18.655
86	2/10/1978	6:00:00	52.176	18.648
87	2/10/1978	5:00:00	51.881	18.471
88	2/21/2005	11:00:00	51.658	18.337
89	2/8/1976	21:00:00	51.654	18.335
90	3/1/1981	14:00:00	51.602	18.304
91	3/11/1995	4:00:00	51.483	18.232
92	10/28/1974	11:00:00	50.933	17.904
93	12/28/1977	13:00:00	50.737	17.787
94	1/11/1980	7:00:00	50.486	17.637
95	2/27/1983	19:00:00	50.437	17.608
96	4/4/2006	23:00:00	50.352	17.557
97	3/1/1991	9:00:00	50.027	17.364

98	2/9/1976	1:00:00	63.513	25.6728
99	2/8/1976	22:00:00	63.391	25.5952
100	1/29/1980	18:00:00	63.224	25.4890
101	2/8/1976	21:00:00	63.181	25.4617
102	1/11/2005	5:00:00	63.181	25.4617
103	1/10/1978	8:00:00	63.141	25.4363
104	2/19/1980	16:00:00	62.911	25.2902
105	12/18/1988	14:00:00	62.746	25.1856
106	1/11/1980	7:00:00	62.605	25.0962
107	3/11/2006	1:00:00	62.529	25.0480
108	1/31/1979	12:00:00	62.462	25.0056
109	2/16/1980	19:00:00	61.898	24.6488
110	1/14/1978	20:00:00	61.452	24.3672
111	2/26/1983	15:00:00	61.087	24.1372
112	11/12/2003	6:00:00	61.026	24.0988
113	2/21/2005	13:00:00	60.822	23.9705
114	12/23/1982	1:00:00	60.802	23.9579
115	12/7/1992	17:00:00	59.659	23.2411
116	2/1/1996	2:00:00	59.435	23.1010
117	12/18/1978	18:00:00	59.327	23.0336
118	2/11/2005	16:00:00	58.983	22.8189
119	2/28/1978	20:00:00	58.895	22.7641
120	3/2/1992	15:00:00	58.848	22.7348
121	2/7/1976	4:00:00	58.328	22.4112
122	1/12/2001	12:00:00	57.853	22.1163
123	1/12/1997	17:00:00	57.498	21.8964
124	3/16/1986	11:00:00	56.723	21.4176
125	12/25/1988	1:00:00	56.676	21.3886
126	11/20/1983	12:00:00	56.560	21.3171
127	2/14/1980	17:00:00	56.283	21.1466
128	1/7/2008	1:00:00	56.274	21.1411
129	10/20/2004	14:00:00	56.182	21.0845
130	11/11/1985	11:00:00	55.919	20.9229
131	3/6/1980	5:00:00	55.898	20.9100
132	2/9/1981	2:00:00	55.855	20.8836
133	2/28/2006	0:00:00	55.713	20.7965
134	2/19/2007	13:00:00	55.190	20.4762
135	1/31/1979	6:00:00	55.127	20.4376
136	3/5/1995	18:00:00	54.828	20.2550
137	3/13/1996	9:00:00	54.781	20.2263
138	3/6/1980	10:00:00	54.179	19.8595
139	1/10/1995	20:00:00	54.166	19.8516
140	12/28/2004	19:00:00	53.869	19.6711
141	2/27/1983	18:00:00	53.814	19.6377
142	10/27/2004	9:00:00	53.792	19.6244
143	11/30/2007	23:00:00	53.689	19.5619
144	2/14/2001	17:00:00	53.249	19.2953
145	1/16/1979	2:00:00	53.146	19.2330
146	10/10/1986	4:00:00	52.869	19.0656
147	10/14/2006	0:00:00	51.797	18.4205
148	1/4/2005	4:00:00	51.512	18.2496
149	1/9/2005	5:00:00	51.429	18.1999
150	12/4/1987	22:00:00	51.300	18.1228
151	1/18/1993	14:00:00	50.969	17.9250

98	3/27/1998	17:00:00	49.769	17.211
99	1/27/2008	2:00:00	49.564	17.090
100	2/21/2005	13:00:00	49.506	17.056
101	3/21/1983	5:00:00	49.347	16.962
102	2/13/1978	11:00:00	49.189	16.869
103	3/5/1995	22:00:00	49.014	16.765
104	3/5/1995	21:00:00	48.845	16.666
105	2/19/1980	16:00:00	48.821	16.652
106	4/5/2006	7:00:00	48.771	16.622
107	2/27/1978	22:00:00	48.703	16.582
108	12/25/2003	19:00:00	48.606	16.525
109	2/15/1986	3:00:00	48.202	16.288
110	1/14/1978	20:00:00	48.127	16.244
111	12/7/1992	17:00:00	47.897	16.109
112	3/11/2006	1:00:00	47.862	16.089
113	2/16/1980	19:00:00	47.759	16.029
114	12/28/2004	22:00:00	47.586	15.928
115	1/10/1978	8:00:00	47.072	15.628
116	3/5/1995	18:00:00	47.018	15.597
117	1/29/1980	19:00:00	46.703	15.414
118	2/28/1978	20:00:00	46.553	15.327
119	3/1/1991	10:00:00	46.490	15.290
120	2/1/1996	2:00:00	46.307	15.185
121	10/27/2004	9:00:00	46.130	15.082
122	12/18/1988	14:00:00	45.840	14.915
123	1/12/2001	12:00:00	45.561	14.754
124	1/7/2008	1:00:00	45.201	14.548
125	11/12/2003	6:00:00	45.102	14.491
126	2/26/1983	15:00:00	44.736	14.281
127	1/8/1993	0:00:00	44.586	14.196
128	12/25/1988	1:00:00	44.322	14.045
129	11/20/1983	12:00:00	44.311	14.039
130	12/23/1982	1:00:00	44.063	13.898
131	2/7/1976	4:00:00	44.015	13.871
132	1/11/2005	8:00:00	43.964	13.842
133	12/18/1978	18:00:00	43.897	13.804
134	2/9/1981	2:00:00	43.686	13.684
135	2/19/2007	13:00:00	43.517	13.588
136	3/5/1995	19:00:00	43.505	13.582
137	3/6/1980	10:00:00	43.400	13.522
138	3/2/1992	15:00:00	43.391	13.517
139	2/11/2005	16:00:00	43.314	13.474
140	3/13/1996	9:00:00	42.715	13.136
141	1/31/1979	6:00:00	42.556	13.047
142	2/27/1983	18:00:00	42.437	12.980
143	1/12/1997	17:00:00	42.027	12.751
144	1/29/1980	23:00:00	41.870	12.663
145	3/16/1986	11:00:00	41.710	12.574
146	10/10/1986	4:00:00	41.702	12.569
147	2/14/1980	17:00:00	41.468	12.439
148	2/14/2001	17:00:00	41.282	12.336
149	1/18/1993	14:00:00	41.000	12.180
150	1/4/2005	4:00:00	40.558	11.936
151	10/28/1974	13:00:00	40.475	11.890

152	2/8/1994	7:00:00	50.907	17.8880
153	1/17/1990	3:00:00	50.853	17.8558
154	2/14/1995	11:00:00	50.769	17.8057
155	2/5/1978	15:00:00	50.724	17.7789
156	2/23/2004	17:00:00	50.631	17.7235
157	2/21/2005	12:00:00	50.589	17.6984
158	4/15/1976	21:00:00	50.073	17.3917
159	1/6/2008	7:00:00	50.037	17.3703
160	3/18/1983	23:00:00	49.478	17.0392
161	3/5/2005	1:00:00	49.081	16.8048
162	10/28/1974	13:00:00	48.914	16.7064
163	12/18/1984	18:00:00	48.819	16.6505
164	12/7/1992	14:00:00	48.510	16.4688
165	2/13/1992	6:00:00	47.856	16.0854
166	12/25/1988	0:00:00	47.769	16.0346
167	1/27/1983	11:00:00	46.664	15.3913
168	11/11/1978	22:00:00	46.638	15.3763
169	3/24/1998	17:00:00	46.519	15.3073
170	3/1/1991	9:00:00	46.443	15.2633
171	4/28/2005	23:00:00	46.159	15.0991
172	3/1/1991	7:00:00	46.099	15.0644
173	3/15/1986	23:00:00	45.907	14.9536
174	1/29/1983	1:00:00	45.870	14.9323
175	2/8/1983	6:00:00	45.788	14.8850
176	2/19/1993	17:00:00	45.451	14.6912
177	9/10/1976	9:00:00	45.445	14.6877
178	11/25/1985	1:00:00	45.441	14.6854
179	5/9/1977	0:00:00	45.395	14.6590
180	3/5/1995	19:00:00	45.000	14.4325
181	3/11/2006	3:00:00	44.099	13.9184
182	4/5/2006	2:00:00	43.768	13.7305
183	3/22/2005	23:00:00	43.690	13.6863
184	3/5/1995	16:00:00	43.676	13.6784
185	10/19/2004	16:00:00	43.466	13.5595
186	2/14/1995	10:00:00	43.139	13.3748
187	4/20/1988	9:00:00	43.097	13.3512
188	9/25/1986	6:00:00	43.028	13.3123
189	1/16/1993	11:00:00	43.018	13.3066
190	1/16/1993	10:00:00	43.002	13.2976
191	1/4/1974	20:00:00	42.975	13.2824
192	11/20/1983	11:00:00	42.954	13.2706
193	1/16/1993	9:00:00	42.768	13.1659
194	1/11/2005	8:00:00	42.731	13.1451
195	1/11/2005	3:00:00	42.686	13.1199
196	2/27/1983	6:00:00	42.455	12.9902
197	1/15/1993	16:00:00	42.418	12.9695
198	1/15/1993	14:00:00	42.409	12.9644
199	2/19/2007	12:00:00	42.339	12.9252
200	1/8/1993	0:00:00	42.090	12.7859
201	3/2/1992	17:00:00	42.042	12.7591
202	2/5/1976	2:00:00	42.015	12.7440
203	12/17/2002	17:00:00	41.801	12.6246
204	3/11/1975	14:00:00	41.709	12.5733
205	2/13/1978	0:00:00	41.643	12.5366

152	11/11/1985	11:00:00	40.298	11.793
153	3/1/1991	7:00:00	40.277	11.781
154	1/9/2005	5:00:00	40.214	11.746
155	2/21/2005	12:00:00	40.069	11.667
156	2/14/1995	11:00:00	40.065	11.665
157	10/20/2004	17:00:00	39.747	11.491
158	1/10/1995	20:00:00	39.730	11.481
159	2/28/2006	0:00:00	39.591	11.405
160	2/23/2004	17:00:00	39.519	11.366
161	2/21/1980	1:00:00	39.386	11.294
162	11/30/2007	23:00:00	39.337	11.267
163	3/1/1991	11:00:00	39.136	11.157
164	12/28/2004	19:00:00	39.110	11.143
165	3/5/2005	1:00:00	38.964	11.064
166	1/16/1979	2:00:00	38.867	11.012
167	2/21/1980	5:00:00	38.641	10.889
168	12/18/1984	18:00:00	38.624	10.880
169	1/31/1979	15:00:00	38.602	10.868
170	12/7/1992	14:00:00	38.410	10.764
171	2/5/1978	15:00:00	38.259	10.683
172	10/27/2004	15:00:00	38.188	10.645
173	1/16/1993	11:00:00	38.106	10.601
174	2/19/1993	17:00:00	37.950	10.517
175	1/16/1993	10:00:00	37.743	10.406
176	1/17/1990	3:00:00	37.677	10.371
177	10/19/2004	16:00:00	37.516	10.285
178	1/16/1993	9:00:00	37.025	10.023
179	3/5/1995	16:00:00	37.006	10.013
180	1/6/2008	7:00:00	36.538	9.765
181	2/9/1976	3:00:00	36.450	9.719
182	1/7/1993	4:00:00	36.333	9.657
183	1/27/1983	11:00:00	36.327	9.654
184	1/29/1980	13:00:00	36.298	9.639
185	2/13/1992	6:00:00	36.294	9.637
186	1/11/2005	3:00:00	36.177	9.575
187	2/8/1994	7:00:00	36.142	9.557
188	1/15/1978	6:00:00	35.846	9.401
189	1/7/1993	3:00:00	35.693	9.321
190	5/9/1977	0:00:00	35.679	9.314
191	3/18/1983	23:00:00	35.571	9.257
192	2/23/2005	1:00:00	35.436	9.187
193	2/18/1980	6:00:00	35.249	9.090
194	3/24/1998	17:00:00	35.104	9.014
195	3/1/1991	8:00:00	35.044	8.983
196	1/15/1993	16:00:00	35.017	8.969
197	12/29/2004	6:00:00	34.854	8.885
198	3/5/1978	8:00:00	34.819	8.867
199	2/13/1978	13:00:00	34.756	8.834
200	4/5/2006	2:00:00	34.646	8.777
201	1/17/1978	3:00:00	34.549	8.727
202	1/8/1974	3:00:00	34.445	8.674
203	1/7/1993	0:00:00	34.426	8.664
204	1/15/1978	3:00:00	34.326	8.612
205	1/11/1980	12:00:00	34.307	8.603

206	2/8/1983	7:00:00	41.634	12.5316
207	2/13/1978	13:00:00	41.504	12.4593
208	1/8/1974	3:00:00	41.461	12.4354
209	2/23/1998	17:00:00	41.397	12.3998
210	2/26/2004	17:00:00	41.397	12.3998
211	3/19/1981	23:00:00	41.380	12.3904
212	1/7/1993	4:00:00	41.323	12.3587
213	11/12/2003	9:00:00	41.261	12.3243
214	1/7/1974	18:00:00	41.167	12.2722
215	1/7/1993	3:00:00	41.134	12.2539
216	3/5/1978	8:00:00	41.130	12.2517
217	3/12/1978	2:00:00	41.068	12.2174
218	2/23/2005	1:00:00	41.059	12.2124
219	1/17/1978	3:00:00	41.057	12.2113
220	12/18/1984	16:00:00	41.056	12.2107
221	3/12/1978	1:00:00	40.921	12.1360
222	1/11/2001	8:00:00	40.895	12.1217
223	1/7/1993	0:00:00	40.854	12.0990
224	3/12/1978	0:00:00	40.717	12.0233
225	11/24/1978	13:00:00	40.631	11.9759
226	11/25/1983	0:00:00	40.460	11.8817
227	12/4/1974	11:00:00	40.288	11.7871
228	2/21/1980	5:00:00	40.243	11.7624
229	1/15/1978	6:00:00	40.213	11.7459
230	2/1/1996	4:00:00	40.058	11.6608
231	2/21/1980	1:00:00	39.902	11.5753
232	1/15/1978	3:00:00	39.741	11.4872
233	12/29/1976	14:00:00	39.658	11.4419
234	2/18/1980	6:00:00	39.633	11.4282
235	1/15/1978	2:00:00	39.471	11.3398
236	12/27/1984	19:00:00	39.339	11.2679
237	2/20/1980	18:00:00	39.236	11.2119
238	11/8/2004	1:00:00	39.228	11.2075
239	12/9/1996	19:00:00	39.126	11.1521
240	11/25/1985	4:00:00	39.013	11.0907
241	1/15/1978	1:00:00	38.985	11.0755
242	2/7/1978	19:00:00	38.984	11.0750
243	2/10/1978	4:00:00	38.862	11.0088
244	1/29/1980	19:00:00	38.823	10.9877
245	1/11/1980	12:00:00	38.463	10.7931
246	1/31/1996	22:00:00	38.225	10.6648
247	2/18/1980	4:00:00	38.173	10.6368
248	1/11/1980	9:00:00	38.119	10.6078
249	1/5/1974	2:00:00	38.080	10.5868
250	4/20/1983	12:00:00	38.073	10.5831
251	1/29/1980	23:00:00	38.052	10.5718
252	3/11/1986	2:00:00	37.988	10.5374
253	1/27/1983	13:00:00	37.810	10.4419
254	12/19/1978	9:00:00	37.772	10.4216
255	1/29/1980	13:00:00	37.519	10.2863
256	1/5/1974	1:00:00	37.495	10.2735
257	2/8/1976	19:00:00	37.450	10.2494
258	2/22/1998	17:00:00	37.450	10.2494
259	3/24/1983	4:00:00	37.357	10.1998

206	4/15/1976	21:00:00	34.301	8.600
207	3/11/2006	3:00:00	34.247	8.572
208	3/2/1992	17:00:00	34.213	8.554
209	9/25/1986	6:00:00	34.097	8.495
210	1/15/1993	14:00:00	34.018	8.455
211	2/1/1996	4:00:00	33.872	8.380
212	3/22/2005	23:00:00	33.559	8.220
213	11/11/1978	22:00:00	33.504	8.192
214	1/15/1978	2:00:00	33.483	8.182
215	1/11/1980	9:00:00	33.392	8.136
216	12/25/1988	0:00:00	33.354	8.116
217	3/11/1975	14:00:00	33.264	8.071
218	2/13/1978	0:00:00	33.214	8.045
219	2/8/1983	7:00:00	33.207	8.042
220	1/29/1983	1:00:00	33.100	7.988
221	2/20/1980	18:00:00	32.963	7.919
222	2/27/1983	6:00:00	32.958	7.916
223	2/8/1983	6:00:00	32.912	7.893
224	4/28/2005	23:00:00	32.886	7.880
225	3/1/1978	11:00:00	32.796	7.834
226	3/12/1978	2:00:00	32.741	7.807
227	2/19/2007	12:00:00	32.699	7.786
228	1/5/1974	2:00:00	32.650	7.761
229	11/12/2003	9:00:00	32.629	7.751
230	3/12/1978	1:00:00	32.620	7.746
231	3/6/1980	5:00:00	32.562	7.717
232	11/20/1983	11:00:00	32.562	7.717
233	1/11/2001	8:00:00	32.522	7.697
234	1/7/1974	18:00:00	32.467	7.669
235	3/12/1978	0:00:00	32.433	7.652
236	3/2/1978	10:00:00	32.341	7.606
237	3/1/1978	9:00:00	32.250	7.561
238	11/24/1978	13:00:00	32.240	7.556
239	1/29/1980	21:00:00	32.153	7.512
240	1/15/1978	1:00:00	31.950	7.411
241	11/25/1985	1:00:00	31.727	7.301
242	12/4/1974	11:00:00	31.706	7.290
243	12/19/1978	9:00:00	31.659	7.267
244	3/1/1978	8:00:00	31.635	7.255
245	2/18/1980	4:00:00	31.632	7.254
246	2/23/1998	17:00:00	31.631	7.253
247	1/29/1980	9:00:00	31.613	7.245
248	4/20/1988	9:00:00	31.608	7.242
249	12/17/2002	17:00:00	31.593	7.235
250	1/31/1979	10:00:00	31.367	7.123
251	9/10/1976	9:00:00	31.358	7.119
252	3/3/1983	7:00:00	31.357	7.118
253	2/26/2004	17:00:00	31.337	7.108
254	1/5/1974	1:00:00	31.334	7.107
255	2/7/1978	19:00:00	31.115	6.999
256	2/12/2005	16:00:00	31.073	6.979
257	2/7/1976	5:00:00	31.001	6.944
258	3/15/1986	23:00:00	30.931	6.909
259	3/1/1978	7:00:00	30.859	6.874

260	2/9/1976	3:00:00	37.331	10.1860
261	12/7/1992	13:00:00	37.292	10.1652
262	3/2/1978	10:00:00	37.244	10.1396
263	11/24/1978	7:00:00	37.210	10.1215
264	1/16/1978	23:00:00	37.182	10.1066
265	4/20/1983	11:00:00	37.172	10.1013
266	3/16/1986	17:00:00	37.134	10.0811
267	11/4/1987	23:00:00	37.074	10.0492
268	1/28/1980	22:00:00	37.048	10.0354
269	1/18/1979	18:00:00	36.963	9.9902
270	1/4/1987	19:00:00	36.908	9.9610
271	3/5/1978	5:00:00	36.818	9.9133
272	2/8/1994	8:00:00	36.737	9.8704
273	1/5/1974	0:00:00	36.736	9.8699
274	1/3/2005	10:00:00	36.562	9.7779
275	2/7/1976	5:00:00	36.533	9.7626
276	2/19/2007	16:00:00	36.502	9.7462
277	3/11/2006	13:00:00	36.474	9.7314
278	3/1/1991	10:00:00	36.471	9.7298
279	3/1/1978	11:00:00	36.429	9.7077
280	1/11/1980	1:00:00	36.417	9.7013
281	3/1/1978	9:00:00	36.208	9.5912
282	3/1/1991	8:00:00	36.187	9.5802
283	2/7/1998	16:00:00	36.036	9.5008
284	1/6/1979	3:00:00	36.017	9.4909
285	3/1/1978	8:00:00	35.976	9.4694
286	1/31/1979	10:00:00	35.897	9.4279
287	2/12/2005	16:00:00	35.796	9.3750
288	3/1/1978	7:00:00	35.696	9.3227
289	3/5/1995	22:00:00	35.656	9.3018
290	3/2/1981	2:00:00	35.631	9.2887
291	3/5/1995	21:00:00	35.519	9.2302
292	1/29/1980	9:00:00	35.505	9.2229
293	2/12/2005	8:00:00	35.496	9.2182
294	1/19/1980	3:00:00	35.489	9.2146
295	1/4/1974	23:00:00	35.481	9.2104
296	1/7/1993	16:00:00	35.314	9.1234
297	1/31/1979	9:00:00	35.261	9.0958
298	3/5/1978	16:00:00	35.234	9.0818
299	12/18/1978	23:00:00	35.158	9.0423
300	1/29/1980	5:00:00	34.741	8.8263
301	2/22/2008	7:00:00	34.609	8.7582
302	1/14/1990	4:00:00	34.572	8.7391
303	12/20/2002	17:00:00	34.527	8.7159
304	12/5/2004	15:00:00	34.503	8.7035
305	2/11/1978	12:00:00	34.426	8.6639
306	3/11/1995	7:00:00	34.275	8.5863
307	2/8/1993	21:00:00	34.131	8.5124
308	2/27/1996	23:00:00	34.080	8.4863
309	1/12/1993	16:00:00	33.979	8.4346
310	11/23/1973	3:00:00	33.947	8.4182
311	1/29/1980	4:00:00	33.828	8.3574
312	3/28/1979	21:00:00	33.814	8.3503
313	1/28/2005	17:00:00	33.720	8.3023

260	1/9/2005	23:00:00	30.836	6.863
261	11/25/1985	4:00:00	30.688	6.791
262	1/31/1996	22:00:00	30.538	6.718
263	2/14/1995	10:00:00	30.520	6.709
264	2/12/2005	8:00:00	30.508	6.703
265	1/31/1979	9:00:00	30.378	6.640
266	2/19/2007	16:00:00	30.188	6.548
267	4/20/1983	12:00:00	30.164	6.537
268	3/1/1991	12:00:00	30.158	6.534
269	2/8/1976	19:00:00	30.116	6.514
270	2/10/1978	4:00:00	30.010	6.463
271	3/3/1983	3:00:00	29.764	6.344
272	10/14/2006	0:00:00	29.718	6.322
273	12/7/1992	13:00:00	29.693	6.310
274	12/4/1987	22:00:00	29.682	6.305
275	1/27/1983	13:00:00	29.657	6.293
276	2/5/1976	2:00:00	29.633	6.282
277	11/4/1987	23:00:00	29.459	6.199
278	1/29/1980	5:00:00	29.447	6.193
279	1/5/1974	0:00:00	29.426	6.183
280	3/3/1983	9:00:00	29.393	6.167
281	12/18/1984	16:00:00	29.304	6.125
282	1/7/1993	16:00:00	29.290	6.118
283	12/29/1976	14:00:00	29.198	6.075
284	4/20/1983	11:00:00	29.160	6.057
285	1/16/1978	23:00:00	29.128	6.041
286	2/8/1994	8:00:00	29.100	6.028
287	1/7/1993	8:00:00	29.030	5.995
288	3/3/1983	5:00:00	29.002	5.982
289	1/11/1980	1:00:00	28.909	5.938
290	2/7/1998	16:00:00	28.908	5.937
291	1/4/1974	20:00:00	28.877	5.923
292	3/2/1983	22:00:00	28.768	5.872
293	3/11/1986	2:00:00	28.625	5.804
294	3/5/1978	5:00:00	28.494	5.743
295	3/2/1983	16:00:00	28.489	5.741
296	1/15/1993	19:00:00	28.389	5.694
297	1/4/1974	23:00:00	28.335	5.669
298	3/11/2006	13:00:00	28.323	5.663
299	1/18/1979	18:00:00	28.308	5.656
300	3/19/1981	23:00:00	28.270	5.638
301	11/24/1978	7:00:00	28.262	5.635
302	2/6/1976	7:00:00	28.148	5.582
303	1/3/2005	10:00:00	28.139	5.577
304	10/19/2004	18:00:00	28.093	5.556
305	2/22/2005	22:00:00	27.996	5.511
306	12/18/1978	23:00:00	27.913	5.473
307	2/22/1998	17:00:00	27.789	5.415
308	1/4/1987	19:00:00	27.784	5.413
309	3/28/1979	21:00:00	27.675	5.363
310	3/24/1983	4:00:00	27.657	5.355
311	3/5/1978	16:00:00	27.574	5.316
312	12/27/1984	19:00:00	27.530	5.296
313	3/11/1995	7:00:00	27.449	5.259

314	2/6/1976	7:00:00	33.631	8.2570
315	3/24/1994	23:00:00	33.609	8.2458
316	12/3/1983	17:00:00	33.171	8.0236
317	3/11/1978	23:00:00	32.970	7.9221
318	3/2/1983	16:00:00	32.736	7.8043
319	4/7/1978	5:00:00	32.696	7.7842
320	3/10/1980	18:00:00	32.639	7.7555
321	1/31/1979	7:00:00	32.522	7.6969
322	2/5/1978	18:00:00	32.519	7.6954
323	12/29/2004	6:00:00	32.478	7.6748
324	11/4/1987	19:00:00	32.428	7.6498
325	4/2/1974	6:00:00	32.340	7.6058
326	1/11/2005	2:00:00	32.336	7.6038
327	1/15/1993	19:00:00	32.293	7.5823
328	10/19/2004	18:00:00	31.929	7.4011
329	1/6/1992	12:00:00	31.904	7.3886
330	1/29/1980	2:00:00	31.899	7.3862
331	3/5/1995	13:00:00	31.809	7.3415
332	1/4/1974	21:00:00	31.636	7.2559
333	1/9/2005	23:00:00	31.619	7.2475
334	3/16/1986	22:00:00	31.616	7.2460
335	1/12/1993	19:00:00	31.542	7.2094
336	2/14/1995	12:00:00	31.300	7.0902
337	2/22/2005	22:00:00	31.296	7.0882
338	1/29/1983	2:00:00	31.286	7.0833
339	11/24/1978	3:00:00	31.154	7.0185
340	1/7/1993	8:00:00	30.991	6.9387
341	3/5/1995	12:00:00	30.783	6.8371
342	1/25/1995	23:00:00	30.705	6.7990
343	3/1/1978	6:00:00	30.678	6.7859
344	1/13/1993	21:00:00	30.419	6.6601
345	12/11/1984	11:00:00	30.408	6.6548
346	3/10/1986	21:00:00	30.340	6.6218
347	1/6/1993	22:00:00	30.302	6.6035
348	4/14/1998	17:00:00	29.993	6.4544
349	12/11/1984	10:00:00	29.986	6.4510
350	2/1/1996	3:00:00	29.871	6.3958
351	3/1/1983	15:00:00	29.763	6.3440
352	4/5/2006	1:00:00	29.748	6.3368
353	12/27/1984	4:00:00	29.622	6.2765
354	11/24/1984	22:00:00	29.555	6.2445
355	12/17/1978	23:00:00	29.539	6.2369
356	11/23/1973	0:00:00	29.500	6.2183
357	2/21/2005	7:00:00	29.460	6.1992
358	1/5/1978	22:00:00	29.268	6.1079
359	12/18/1984	19:00:00	29.205	6.0780
360	1/14/1990	5:00:00	29.137	6.0457
361	1/9/1978	19:00:00	28.936	5.9507
362	2/20/1980	5:00:00	28.889	5.9285
363	12/7/1992	15:00:00	28.857	5.9134
364	1/5/1992	16:00:00	28.780	5.8772
365	1/27/2008	3:00:00	28.581	5.7837
366	2/28/2006	2:00:00	28.456	5.7252
367	1/26/1997	3:00:00	28.173	5.5933

314	3/16/1986	17:00:00	27.390	5.232
315	1/16/1993	13:00:00	27.380	5.228
316	3/16/1986	22:00:00	27.352	5.215
317	1/29/1980	4:00:00	27.088	5.094
318	12/5/2004	15:00:00	27.056	5.080
319	3/2/1981	2:00:00	26.941	5.028
320	2/14/1995	12:00:00	26.919	5.018
321	1/10/2005	1:00:00	26.608	4.877
322	2/22/2008	7:00:00	26.598	4.873
323	1/19/1980	3:00:00	26.585	4.867
324	12/9/1996	19:00:00	26.056	4.631
325	1/31/1979	7:00:00	26.022	4.616
326	1/12/1993	16:00:00	26.014	4.612
327	2/27/1996	23:00:00	25.987	4.600
328	1/25/1995	23:00:00	25.970	4.593
329	11/8/2004	1:00:00	25.959	4.588
330	4/2/1974	6:00:00	25.845	4.537
331	2/8/1993	21:00:00	25.699	4.473
332	3/5/1995	13:00:00	25.670	4.460
333	11/23/1973	3:00:00	25.577	4.419
334	1/16/1993	12:00:00	25.543	4.404
335	2/5/1978	18:00:00	25.540	4.403
336	1/29/1980	2:00:00	25.525	4.397
337	1/7/1993	22:00:00	25.371	4.329
338	1/29/1983	2:00:00	25.348	4.319
339	12/20/2002	17:00:00	25.334	4.313
340	2/1/1996	3:00:00	25.214	4.261
341	2/11/1978	12:00:00	25.202	4.256
342	1/4/1974	21:00:00	25.117	4.219
343	4/7/1978	5:00:00	25.050	4.190
344	3/5/1995	23:00:00	24.869	4.111
345	3/5/1995	12:00:00	24.778	4.072
346	2/20/1980	21:00:00	24.494	3.951
347	12/11/1984	11:00:00	24.490	3.949
348	1/28/1980	22:00:00	24.456	3.935
349	1/6/1993	22:00:00	24.439	3.927
350	1/6/1979	3:00:00	24.429	3.923
351	1/11/2005	2:00:00	24.426	3.922
352	3/10/1986	21:00:00	24.421	3.920
353	2/15/1986	9:00:00	24.360	3.894
354	3/1/1991	6:00:00	24.316	3.875
355	11/4/1987	19:00:00	24.159	3.809
356	3/1/1978	6:00:00	24.097	3.782
357	3/10/1980	18:00:00	24.078	3.774
358	11/25/1983	0:00:00	24.069	3.771
359	12/11/1984	10:00:00	24.044	3.760
360	1/11/2005	7:00:00	24.043	3.760
361	1/7/2008	3:00:00	24.022	3.751
362	2/21/2005	7:00:00	23.827	3.669
363	12/18/1984	19:00:00	23.747	3.635
364	3/1/1991	5:00:00	23.746	3.635
365	2/12/2005	11:00:00	23.653	3.596
366	11/24/1984	22:00:00	23.626	3.585
367	12/27/1984	4:00:00	23.523	3.542

368	1/11/2001	7:00:00	27.816	5.4279
369	1/10/1995	21:00:00	27.805	5.4228
370	12/18/1984	17:00:00	27.776	5.4094
371	2/11/2003	17:00:00	27.754	5.3993
372	2/2/1998	16:00:00	27.451	5.2600
373	12/6/1998	7:00:00	27.413	5.2426
374	3/26/1991	3:00:00	27.111	5.1048
375	1/6/1993	14:00:00	26.984	5.0472
376	10/27/2004	15:00:00	26.940	5.0272
377	1/7/2008	3:00:00	26.557	4.8545
378	3/1/1991	11:00:00	26.448	4.8056
379	3/5/1981	18:00:00	26.416	4.7912
380	11/29/1985	15:00:00	26.287	4.7336
381	3/12/1995	0:00:00	25.936	4.5775
382	2/12/2005	11:00:00	25.848	4.5386
383	1/31/1996	21:00:00	25.801	4.5179
384	2/5/1976	3:00:00	25.729	4.4861
385	3/1/1991	6:00:00	25.626	4.4408
386	2/7/1978	18:00:00	25.564	4.4136
387	8/17/1977	1:00:00	25.497	4.3843
388	3/1/1991	5:00:00	25.324	4.3087
389	2/15/1986	9:00:00	25.298	4.2973
390	2/5/1976	17:00:00	25.271	4.2856
391	10/31/1987	18:00:00	25.222	4.2643
392	1/14/1978	19:00:00	25.199	4.2543
393	12/19/1978	7:00:00	25.123	4.2213
394	1/7/2008	5:00:00	24.882	4.1171
395	9/25/1986	7:00:00	24.839	4.0985
396	8/17/1977	4:00:00	24.217	3.8330
397	10/19/2004	19:00:00	24.190	3.8216
398	2/20/1993	7:00:00	24.139	3.8001
399	11/25/1985	10:00:00	24.124	3.7937
400	3/6/1980	8:00:00	23.760	3.6409
401	1/27/1983	9:00:00	23.760	3.6409
402	1/6/1979	4:00:00	23.647	3.5938
403	3/6/1975	12:00:00	23.643	3.5921
404	1/18/1979	8:00:00	23.638	3.5900
405	11/25/1985	9:00:00	23.468	3.5195
406	2/2/1983	15:00:00	23.444	3.5096
407	10/20/1979	16:00:00	23.426	3.5021
408	1/5/1992	15:00:00	23.365	3.4769
409	5/2/1980	0:00:00	23.343	3.4678
410	12/4/1974	13:00:00	23.274	3.4394
411	2/7/1998	15:00:00	23.213	3.4143
412	2/28/2006	8:00:00	23.163	3.3938
413	3/1/1981	5:00:00	23.041	3.3439
414	3/2/1983	22:00:00	22.962	3.3117
415	3/3/1983	5:00:00	22.896	3.2848
416	3/2/1992	10:00:00	22.872	3.2750
417	12/30/1981	15:00:00	22.867	3.2730
418	2/8/1976	17:00:00	22.862	3.2710
419	1/16/1993	12:00:00	22.841	3.2625
420	1/11/2005	6:00:00	22.736	3.2199
421	3/5/1995	15:00:00	22.702	3.2062

368	10/19/2004	19:00:00	23.516	3.539
369	12/7/1992	15:00:00	23.478	3.524
370	3/24/1994	23:00:00	23.380	3.483
371	1/27/2008	3:00:00	23.309	3.454
372	3/11/1978	23:00:00	23.193	3.406
373	1/31/1979	17:00:00	23.172	3.398
374	3/2/1983	21:00:00	23.149	3.388
375	11/25/1985	10:00:00	22.972	3.316
376	2/28/2006	2:00:00	22.963	3.312
377	1/14/1990	5:00:00	22.955	3.309
378	1/5/1992	16:00:00	22.872	3.275
379	1/26/1997	3:00:00	22.754	3.227
380	1/11/2005	6:00:00	22.726	3.216
381	3/1/1983	15:00:00	22.691	3.202
382	4/5/2006	1:00:00	22.649	3.185
383	12/18/1984	17:00:00	22.598	3.164
384	11/24/1978	3:00:00	22.589	3.161
385	1/10/1995	21:00:00	22.453	3.106
386	2/20/1980	5:00:00	22.441	3.101
387	1/7/1993	20:00:00	22.325	3.055
388	1/6/1992	12:00:00	22.292	3.042
389	1/7/2008	5:00:00	22.244	3.023
390	1/11/2001	7:00:00	22.228	3.016
391	2/2/1998	16:00:00	22.143	2.982
392	11/25/1985	9:00:00	22.110	2.969
393	3/3/1983	4:00:00	22.060	2.950
394	8/17/1977	4:00:00	21.938	2.902
395	12/4/1974	13:00:00	21.804	2.849
396	1/12/1993	19:00:00	21.544	2.748
397	12/17/1978	23:00:00	21.424	2.701
398	1/7/1993	5:00:00	21.324	2.663
399	1/14/1990	4:00:00	21.301	2.654
400	1/7/1993	6:00:00	21.282	2.647
401	1/6/1993	14:00:00	21.152	2.597
402	11/29/1985	15:00:00	21.102	2.578
403	2/5/1976	3:00:00	21.015	2.545
404	1/28/2005	17:00:00	20.946	2.518
405	12/29/2004	3:00:00	20.798	2.463
406	4/14/1998	17:00:00	20.760	2.448
407	1/13/1993	21:00:00	20.597	2.387
408	1/13/1993	23:00:00	20.479	2.343
409	1/9/1978	19:00:00	20.451	2.333
410	1/7/1993	11:00:00	20.378	2.306
411	9/25/1986	7:00:00	20.365	2.301
412	1/5/1978	22:00:00	20.290	2.273
413	12/3/1983	17:00:00	20.283	2.271
414	3/5/1995	15:00:00	20.222	2.248
415	1/16/1993	14:00:00	20.130	2.215
416	3/26/1991	3:00:00	20.129	2.214
417	3/1/1991	2:00:00	20.046	2.184
418	3/16/1986	23:00:00	19.973	2.158
419	2/22/2005	21:00:00	19.924	2.140
420	10/19/2004	14:00:00	19.742	2.074
421	3/6/1975	12:00:00	19.589	2.019

422	1/16/1993	13:00:00	22.655	3.1872
423	3/1/1991	2:00:00	22.653	3.1864
424	3/3/1983	9:00:00	22.622	3.1739
425	1/11/2005	7:00:00	22.419	3.0924
426	12/17/1987	7:00:00	22.305	3.0469
427	11/21/2004	8:00:00	22.270	3.0329
428	2/28/1983	2:00:00	22.198	3.0043
429	3/3/1983	3:00:00	22.137	2.9801
430	1/10/2005	1:00:00	22.002	2.9267
431	1/13/1993	23:00:00	21.909	2.8901
432	12/25/2003	20:00:00	21.855	2.8689
433	3/12/1986	14:00:00	21.784	2.8411
434	12/11/1984	8:00:00	21.769	2.8352
435	2/13/1998	16:00:00	21.763	2.8329
436	3/12/1986	13:00:00	21.721	2.8165
437	1/7/1993	22:00:00	21.639	2.7845
438	10/19/2004	14:00:00	21.574	2.7593
439	1/9/2005	9:00:00	21.556	2.7523
440	1/12/1995	14:00:00	21.484	2.7244
441	3/16/1986	23:00:00	21.417	2.6985
442	9/3/1976	17:00:00	21.405	2.6939
443	1/7/1993	5:00:00	21.230	2.6266
444	3/25/1994	0:00:00	21.230	2.6266
445	12/29/2004	3:00:00	21.217	2.6216
446	1/7/1993	20:00:00	21.187	2.6102
447	2/22/2005	21:00:00	21.145	2.5941
448	1/7/2005	14:00:00	21.126	2.5869
449	1/7/1993	6:00:00	21.077	2.5682
450	2/22/2005	20:00:00	20.917	2.5075
451	11/25/1985	5:00:00	20.674	2.4160
452	1/15/1993	13:00:00	20.619	2.3955
453	1/6/1993	23:00:00	20.588	2.3839
454	1/7/1993	2:00:00	20.578	2.3802
455	3/8/1975	13:00:00	20.534	2.3638
456	1/5/1992	20:00:00	20.445	2.3307
457	3/5/2005	2:00:00	20.442	2.3296
458	2/12/2005	7:00:00	20.422	2.3222
459	11/11/1985	13:00:00	20.377	2.3055
460	1/25/1995	21:00:00	20.286	2.2720
461	1/26/1997	9:00:00	20.198	2.2396
462	11/24/1984	23:00:00	20.197	2.2393
463	10/20/1979	15:00:00	20.173	2.2305
464	1/5/1992	19:00:00	20.146	2.2206
465	2/1/1996	5:00:00	20.142	2.2191
466	3/12/1986	12:00:00	20.137	2.2173
467	1/13/1993	1:00:00	20.023	2.1757
468	1/14/1993	1:00:00	19.873	2.1213
469	12/7/1992	20:00:00	19.794	2.0928
470	1/5/1992	18:00:00	19.773	2.0853
471	4/26/1994	18:00:00	19.747	2.0759
472	4/29/1980	1:00:00	19.714	2.0641
473	4/20/1983	10:00:00	19.650	2.0412
474	1/10/1980	12:00:00	19.541	2.0023
475	1/5/1992	17:00:00	19.430	1.9630

422	1/7/1993	2:00:00	19.579	2.016
423	2/28/2006	8:00:00	19.560	2.009
424	2/7/1998	18:00:00	19.518	1.994
425	3/6/1995	0:00:00	19.397	1.951
426	2/22/2005	20:00:00	19.347	1.934
427	1/6/1979	4:00:00	19.299	1.917
428	2/28/1983	2:00:00	19.279	1.910
429	2/1/1996	5:00:00	19.263	1.904
430	10/20/1979	16:00:00	19.191	1.879
431	2/5/1976	17:00:00	19.089	1.843
432	2/7/1998	15:00:00	19.087	1.843
433	3/1/1991	13:00:00	19.083	1.841
434	2/2/1983	15:00:00	19.073	1.838
435	10/20/2004	18:00:00	18.927	1.787
436	3/6/1980	8:00:00	18.900	1.778
437	1/27/1983	9:00:00	18.892	1.775
438	1/7/1993	23:00:00	18.773	1.735
439	12/30/1981	15:00:00	18.732	1.721
440	3/5/2005	2:00:00	18.730	1.720
441	1/10/2005	0:00:00	18.661	1.697
442	2/15/1986	11:00:00	18.606	1.678
443	12/7/1992	20:00:00	18.591	1.673
444	3/3/1983	2:00:00	18.580	1.669
445	2/20/1993	7:00:00	18.364	1.597
446	12/19/1978	7:00:00	18.321	1.582
447	1/14/1993	1:00:00	18.294	1.573
448	1/6/1993	23:00:00	18.210	1.546
449	1/12/1995	14:00:00	18.168	1.532
450	12/25/2003	20:00:00	18.092	1.507
451	3/12/1986	14:00:00	18.039	1.489
452	2/11/2003	17:00:00	18.035	1.488
453	3/3/1983	8:00:00	18.025	1.485
454	3/12/1986	13:00:00	17.980	1.470
455	3/12/1995	0:00:00	17.886	1.440
456	12/6/1998	7:00:00	17.769	1.402
457	1/9/2005	9:00:00	17.745	1.394
458	1/7/2008	6:00:00	17.596	1.347
459	2/21/1980	3:00:00	17.585	1.343
460	3/5/1981	18:00:00	17.451	1.301
461	1/31/1996	21:00:00	17.160	1.210
462	3/25/1994	0:00:00	17.137	1.203
463	11/25/1985	5:00:00	17.133	1.202
464	2/7/1978	18:00:00	17.118	1.197
465	1/12/2001	13:00:00	17.024	1.169
466	2/13/1998	16:00:00	16.949	1.146
467	1/8/1974	4:00:00	16.898	1.130
468	1/15/1978	5:00:00	16.868	1.121
469	1/15/1993	13:00:00	16.868	1.121
470	1/25/1995	21:00:00	16.829	1.110
471	1/5/1992	20:00:00	16.816	1.106
472	1/26/1997	9:00:00	16.816	1.106
473	1/7/1993	21:00:00	16.815	1.105
474	1/14/1978	19:00:00	16.810	1.104
475	11/11/1985	13:00:00	16.800	1.101

476	1/26/1997	8:00:00	19.320	1.9242
477	1/7/1993	11:00:00	19.305	1.9189
478	1/12/1993	20:00:00	19.236	1.8947
479	2/21/2005	6:00:00	19.147	1.8637
480	2/7/1998	18:00:00	19.105	1.8490
481	8/17/1977	2:00:00	18.768	1.7329
482	1/31/1996	23:00:00	18.675	1.7013
483	1/6/1993	16:00:00	18.671	1.6999
484	11/4/1987	22:00:00	18.634	1.6874
485	3/2/1983	2:00:00	18.615	1.6809
486	2/27/1983	7:00:00	18.584	1.6705
487	11/1/1974	23:00:00	18.516	1.6475
488	1/10/1995	23:00:00	18.476	1.6341
489	1/12/2001	13:00:00	18.127	1.5182
490	1/17/1993	5:00:00	18.102	1.5100
491	3/2/1983	5:00:00	18.041	1.4900
492	2/18/2005	6:00:00	17.844	1.4260
493	3/26/1975	4:00:00	17.792	1.4092
494	12/28/1977	9:00:00	17.677	1.3724
495	12/16/1987	21:00:00	17.615	1.3526
496	12/27/1984	3:00:00	17.573	1.3393
497	3/6/1994	21:00:00	17.550	1.3320
498	2/17/1997	21:00:00	17.328	1.2623
499	2/22/2008	8:00:00	17.324	1.2610
500	12/27/1984	20:00:00	17.302	1.2542
501	1/7/2008	6:00:00	17.258	1.2405
502	4/20/1988	12:00:00	17.225	1.2303
503	12/29/1991	18:00:00	17.223	1.2297
504	12/28/1984	0:00:00	17.207	1.2248
505	1/8/1974	4:00:00	17.126	1.1998
506	2/19/2007	17:00:00	17.122	1.1986
507	1/12/1993	23:00:00	16.990	1.1583
508	3/20/1981	5:00:00	16.930	1.1401
509	1/25/1995	12:00:00	16.887	1.1271
510	1/7/1974	19:00:00	16.840	1.1130
511	3/4/2005	23:00:00	16.837	1.1121
512	1/8/1974	5:00:00	16.807	1.1031
513	12/16/1987	19:00:00	16.776	1.0938
514	3/2/1983	21:00:00	16.753	1.0870
515	2/14/1978	0:00:00	16.708	1.0736
516	11/11/1985	12:00:00	16.690	1.0682
517	12/30/1981	14:00:00	16.649	1.0561
518	3/5/1978	6:00:00	16.594	1.0399
519	2/13/1978	23:00:00	16.550	1.0269
520	10/20/2004	17:00:00	16.486	1.0082
521	3/1/1991	12:00:00	16.476	1.0053
522	2/11/1978	13:00:00	16.442	0.9954
523	9/25/1986	5:00:00	16.401	0.9835
524	1/7/1974	16:00:00	16.342	0.9665
525	12/5/2004	16:00:00	16.298	0.9539
526	3/5/1978	12:00:00	16.284	0.9498
527	3/28/1979	10:00:00	16.258	0.9424
528	12/19/1987	18:00:00	16.195	0.9244
529	1/7/1974	15:00:00	16.117	0.9024

476	3/2/1983	2:00:00	16.777	1.094
477	1/8/1974	5:00:00	16.775	1.094
478	2/12/2005	7:00:00	16.767	1.091
479	8/17/1977	1:00:00	16.715	1.076
480	11/24/1984	23:00:00	16.711	1.074
481	1/5/1992	19:00:00	16.563	1.031
482	10/31/1987	18:00:00	16.558	1.029
483	2/20/1980	22:00:00	16.530	1.021
484	1/7/1993	9:00:00	16.488	1.009
485	10/20/1979	15:00:00	16.440	0.995
486	3/5/1978	12:00:00	16.431	0.992
487	2/20/1980	6:00:00	16.416	0.988
488	2/19/2007	17:00:00	16.388	0.980
489	1/13/1993	1:00:00	16.376	0.976
490	2/14/1978	0:00:00	16.337	0.965
491	3/5/1978	6:00:00	16.314	0.958
492	1/5/1992	18:00:00	16.246	0.939
493	3/2/1983	5:00:00	16.238	0.937
494	3/12/1986	12:00:00	16.225	0.933
495	4/26/1994	18:00:00	16.166	0.916
496	12/17/1987	7:00:00	16.138	0.908
497	12/29/2004	5:00:00	16.112	0.901
498	11/23/1973	0:00:00	16.067	0.888
499	3/6/1995	1:00:00	16.035	0.879
500	1/5/1992	17:00:00	15.991	0.867
501	2/15/1986	8:00:00	15.964	0.860
502	1/12/1993	20:00:00	15.949	0.855
503	1/26/1997	8:00:00	15.944	0.854
504	2/15/1986	7:00:00	15.922	0.848
505	2/13/1978	23:00:00	15.900	0.842
506	2/12/2005	14:00:00	15.864	0.832
507	2/19/1980	17:00:00	15.818	0.819
508	1/31/1979	18:00:00	15.815	0.818
509	1/29/1980	22:00:00	15.770	0.806
510	2/19/1993	18:00:00	15.751	0.801
511	2/11/1978	13:00:00	15.746	0.800
512	2/21/2005	6:00:00	15.729	0.795
513	1/31/1996	23:00:00	15.724	0.794
514	3/1/1991	4:00:00	15.700	0.787
515	3/2/1978	11:00:00	15.693	0.785
516	1/7/1993	17:00:00	15.685	0.783
517	2/27/1983	7:00:00	15.678	0.781
518	3/2/1983	20:00:00	15.634	0.769
519	8/17/1977	2:00:00	15.620	0.766
520	1/7/1974	19:00:00	15.589	0.757
521	1/11/1980	15:00:00	15.583	0.756
522	2/8/1976	17:00:00	15.576	0.754
523	3/1/1991	3:00:00	15.500	0.734
524	1/6/1993	16:00:00	15.450	0.720
525	1/5/1974	11:00:00	15.422	0.713
526	1/17/1993	5:00:00	15.402	0.708
527	11/4/1987	22:00:00	15.315	0.685
528	1/8/1993	1:00:00	15.288	0.678
529	1/10/1995	23:00:00	15.236	0.665

530	2/15/1986	11:00:00	16.006	0.8712
531	2/6/1976	2:00:00	15.977	0.8631
532	12/16/1987	18:00:00	15.975	0.8626
533	2/21/2005	5:00:00	15.848	0.8275
534	3/10/1975	18:00:00	15.781	0.8091
535	3/16/1986	0:00:00	15.735	0.7966
536	3/10/1975	17:00:00	15.675	0.7803
537	3/13/1996	10:00:00	15.667	0.7782
538	2/28/2006	1:00:00	15.651	0.7739
539	2/19/1993	18:00:00	15.601	0.7604
540	3/10/1975	16:00:00	15.556	0.7484
541	2/12/2005	14:00:00	15.494	0.7319
542	2/20/1980	6:00:00	15.454	0.7214
543	3/4/1978	22:00:00	15.437	0.7169
544	2/19/1980	17:00:00	15.434	0.7161
545	1/17/1978	2:00:00	15.433	0.7158
546	2/28/2006	10:00:00	15.431	0.7153
547	12/7/1992	11:00:00	15.430	0.7150
548	3/10/1975	15:00:00	15.415	0.7111
549	3/13/1996	2:00:00	15.350	0.6941
550	1/15/1978	5:00:00	15.333	0.6897
551	3/4/1978	21:00:00	15.194	0.6538
552	1/17/1978	1:00:00	15.112	0.6329
553	3/1/1991	4:00:00	15.081	0.6251
554	1/17/1978	0:00:00	15.080	0.6249
555	3/1/1991	3:00:00	15.056	0.6188
556	2/16/1998	16:00:00	15.047	0.6165
557	2/2/1983	16:00:00	14.999	0.6045
558	12/10/1984	20:00:00	14.973	0.5980
559	3/10/1975	14:00:00	14.964	0.5958
560	11/24/1978	12:00:00	14.958	0.5943
561	3/28/1979	20:00:00	14.933	0.5881
562	4/12/1999	4:00:00	14.910	0.5824
563	12/4/1974	10:00:00	14.862	0.5706
564	1/5/1974	11:00:00	14.782	0.5511
565	3/6/1980	6:00:00	14.746	0.5424
566	1/9/2005	8:00:00	14.680	0.5265
567	1/8/1974	7:00:00	14.659	0.5215
568	3/1/1981	13:00:00	14.606	0.5089
569	2/15/1986	8:00:00	14.505	0.4851
570	12/29/1991	17:00:00	14.502	0.4844
571	12/16/1987	17:00:00	14.496	0.4830
572	2/15/1986	7:00:00	14.371	0.4542
573	3/5/1981	19:00:00	14.364	0.4526
574	1/18/1979	19:00:00	14.350	0.4494
575	3/1/1976	20:00:00	14.347	0.4487
576	3/25/1998	17:00:00	14.265	0.4301
577	3/26/1998	17:00:00	14.265	0.4301
578	3/30/1998	17:00:00	14.265	0.4301
579	3/25/1994	2:00:00	14.256	0.4281
580	1/29/1980	21:00:00	14.221	0.4203
581	2/7/1978	20:00:00	14.189	0.4132
582	1/5/1974	10:00:00	14.178	0.4107
583	2/7/1978	21:00:00	13.901	0.3508

530	12/11/1984	8:00:00	15.170	0.648
531	2/8/1976	23:00:00	15.098	0.629
532	3/1/1981	5:00:00	15.096	0.629
533	12/28/1977	9:00:00	15.095	0.629
534	2/28/2006	10:00:00	15.090	0.627
535	1/18/1979	8:00:00	15.070	0.622
536	1/11/2005	9:00:00	15.014	0.608
537	1/11/1980	10:00:00	14.999	0.605
538	2/7/1998	19:00:00	14.961	0.595
539	3/4/1978	22:00:00	14.816	0.559
540	12/16/1987	21:00:00	14.755	0.545
541	1/11/1980	11:00:00	14.730	0.538
542	12/28/1984	0:00:00	14.728	0.538
543	1/5/1974	10:00:00	14.650	0.519
544	1/8/1974	7:00:00	14.616	0.511
545	12/27/1984	20:00:00	14.593	0.506
546	11/25/1985	8:00:00	14.572	0.501
547	2/22/2008	8:00:00	14.537	0.493
548	1/18/1993	7:00:00	14.521	0.489
549	2/9/1976	0:00:00	14.517	0.488
550	1/11/1980	8:00:00	14.461	0.475
551	12/29/1991	18:00:00	14.435	0.469
552	1/5/1992	15:00:00	14.412	0.464
553	1/5/1974	3:00:00	14.409	0.463
554	1/17/1978	2:00:00	14.348	0.449
555	2/18/2005	6:00:00	14.344	0.448
556	4/20/1988	12:00:00	14.291	0.436
557	3/2/1992	10:00:00	14.255	0.428
558	3/4/1978	21:00:00	14.233	0.423
559	12/16/1987	19:00:00	14.174	0.410
560	11/11/1985	12:00:00	14.095	0.392
561	1/29/1980	12:00:00	14.073	0.388
562	3/2/1983	6:00:00	13.994	0.371
563	2/19/1993	21:00:00	13.965	0.364
564	1/7/1974	16:00:00	13.922	0.355
565	10/19/2004	15:00:00	13.914	0.354
566	12/5/2004	16:00:00	13.901	0.351
567	2/20/1980	0:00:00	13.897	0.350
568	3/1/1978	14:00:00	13.802	0.330
569	1/17/1978	0:00:00	13.786	0.327
570	1/15/1993	20:00:00	13.775	0.325
571	2/23/2005	2:00:00	13.758	0.321
572	3/1/1978	10:00:00	13.739	0.317
573	1/7/1974	15:00:00	13.699	0.309
574	3/2/1978	6:00:00	13.670	0.303
575	1/17/1978	1:00:00	13.643	0.298
576	5/2/1980	0:00:00	13.627	0.295
577	12/19/1987	18:00:00	13.608	0.291
578	10/27/2004	11:00:00	13.606	0.290
579	1/18/1993	10:00:00	13.589	0.287
580	12/16/1987	18:00:00	13.549	0.279
581	1/15/1993	21:00:00	13.476	0.265
582	3/13/1996	10:00:00	13.461	0.262
583	2/27/1983	20:00:00	13.422	0.255

584	2/27/1983	20:00:00	13.899	0.3504
585	2/14/2008	17:00:00	13.886	0.3477
586	2/19/1993	21:00:00	13.853	0.3408
587	3/2/1978	11:00:00	13.833	0.3366
588	1/31/1979	15:00:00	13.803	0.3304
589	11/30/2002	17:00:00	13.743	0.3180
590	3/3/1983	7:00:00	13.737	0.3168
591	1/19/1980	4:00:00	13.723	0.3139
592	1/9/1980	17:00:00	13.721	0.3135
593	2/18/1980	2:00:00	13.711	0.3115
594	1/18/1993	7:00:00	13.672	0.3036
595	1/7/2005	15:00:00	13.659	0.3010
596	11/24/1984	18:00:00	13.656	0.3004
597	11/25/1985	8:00:00	13.631	0.2954
598	12/26/1977	16:00:00	13.617	0.2926
599	2/11/1978	15:00:00	13.602	0.2896
600	12/19/1987	17:00:00	13.580	0.2853
601	3/11/1975	0:00:00	13.574	0.2841
602	3/2/1992	16:00:00	13.562	0.2817
603	1/5/1974	3:00:00	13.521	0.2737
604	12/7/2007	9:00:00	13.508	0.2712
605	1/1/1977	15:00:00	13.503	0.2702
606	3/1/1981	8:00:00	13.499	0.2694
607	12/5/1997	17:00:00	13.440	0.2580
608	1/11/1980	8:00:00	13.414	0.2531
609	1/11/1980	10:00:00	13.405	0.2514
610	2/21/1980	3:00:00	13.391	0.2487
611	11/24/1978	15:00:00	13.346	0.2403
612	12/26/1977	14:00:00	13.341	0.2393
613	2/7/1998	19:00:00	13.328	0.2369
614	3/10/1975	22:00:00	13.327	0.2367
615	2/8/1976	23:00:00	13.263	0.2249
616	2/12/2005	2:00:00	13.243	0.2213
617	2/28/1978	19:00:00	13.234	0.2196
618	1/11/2001	10:00:00	13.229	0.2187
619	2/18/1980	1:00:00	13.201	0.2137
620	2/12/2005	3:00:00	13.155	0.2054
621	11/12/2003	10:00:00	13.152	0.2049
622	12/19/1978	0:00:00	13.149	0.2044
623	3/25/1994	1:00:00	13.139	0.2026
624	3/1/1981	7:00:00	13.127	0.2005
625	3/10/1975	20:00:00	13.124	0.1999
626	3/3/1983	4:00:00	13.088	0.1936
627	2/7/1998	14:00:00	13.088	0.1936
628	11/25/2001	17:00:00	13.076	0.1915
629	3/4/1978	20:00:00	13.048	0.1867
630	1/11/1980	11:00:00	13.048	0.1867
631	1/18/1979	9:00:00	13.004	0.1791
632	3/2/1983	6:00:00	12.997	0.1779
633	2/20/1980	0:00:00	12.955	0.1709
634	3/1/1981	6:00:00	12.930	0.1667
635	10/19/2004	15:00:00	12.927	0.1662
636	2/28/1991	16:00:00	12.919	0.1649
637	1/15/1978	0:00:00	12.910	0.1634

584	1/16/1993	3:00:00	13.407	0.252
585	12/19/1978	0:00:00	13.377	0.246
586	2/17/1997	21:00:00	13.315	0.234
587	3/4/1983	5:00:00	13.302	0.232
588	3/10/1975	18:00:00	13.284	0.229
589	1/31/1979	11:00:00	13.259	0.224
590	10/27/2004	16:00:00	13.219	0.217
591	3/10/1975	17:00:00	13.190	0.212
592	1/12/1993	23:00:00	13.188	0.211
593	2/28/2006	1:00:00	13.117	0.199
594	2/18/1980	2:00:00	13.107	0.197
595	11/12/2003	10:00:00	13.107	0.197
596	3/10/1975	16:00:00	13.085	0.193
597	1/15/1993	17:00:00	13.064	0.189
598	12/30/1981	14:00:00	13.039	0.185
599	3/2/1983	23:00:00	13.024	0.183
600	2/11/1978	15:00:00	13.023	0.182
601	11/21/2004	8:00:00	13.015	0.181
602	1/10/1980	12:00:00	13.005	0.179
603	2/2/1998	18:00:00	13.003	0.179
604	2/15/1986	12:00:00	12.978	0.175
605	3/10/1975	15:00:00	12.956	0.171
606	1/14/1993	5:00:00	12.918	0.165
607	3/16/1986	0:00:00	12.910	0.163
608	3/8/1975	13:00:00	12.893	0.161
609	2/2/1983	16:00:00	12.795	0.145
610	4/29/1980	1:00:00	12.780	0.142
611	2/16/1998	16:00:00	12.742	0.136
612	1/15/1993	18:00:00	12.704	0.131
613	11/24/1978	12:00:00	12.627	0.119
614	2/18/1980	8:00:00	12.624	0.118
615	2/7/1976	8:00:00	12.622	0.118
616	1/14/1993	4:00:00	12.622	0.118
617	2/28/1991	17:00:00	12.600	0.115
618	2/7/1976	6:00:00	12.574	0.111
619	4/12/1999	4:00:00	12.507	0.101
620	9/3/1976	17:00:00	12.504	0.101
621	3/1/1981	13:00:00	12.503	0.101
622	1/18/1979	19:00:00	12.410	0.088
623	2/8/1976	20:00:00	12.369	0.082
624	1/7/2005	14:00:00	12.366	0.082
625	2/7/1976	7:00:00	12.351	0.080
626	1/7/1993	1:00:00	12.348	0.080
627	3/10/1975	14:00:00	12.344	0.079
628	2/7/1978	20:00:00	12.331	0.078
629	1/11/1980	2:00:00	12.295	0.073
630	12/16/1987	17:00:00	12.289	0.072
631	2/13/1998	18:00:00	12.278	0.071
632	3/5/1981	19:00:00	12.249	0.067
633	3/4/2005	23:00:00	12.215	0.063
634	1/30/1980	0:00:00	12.204	0.062
635	2/18/1980	1:00:00	12.165	0.057
636	3/25/1994	2:00:00	12.068	0.046
637	3/1/1976	20:00:00	12.016	0.040

638	3/8/1974	11:00:00	12.790	0.1439
639	2/28/1991	17:00:00	12.765	0.1400
640	2/8/1976	20:00:00	12.752	0.1380
641	12/26/1977	12:00:00	12.749	0.1375
642	1/16/1993	14:00:00	12.730	0.1345
643	1/6/1992	0:00:00	12.718	0.1327
644	3/11/1995	6:00:00	12.710	0.1314
645	11/23/1973	4:00:00	12.709	0.1313
646	1/18/1993	10:00:00	12.662	0.1241
647	12/29/2004	5:00:00	12.650	0.1223
648	1/15/1993	17:00:00	12.616	0.1172
649	2/9/1976	0:00:00	12.605	0.1156
650	1/11/2001	9:00:00	12.583	0.1124
651	1/15/1993	20:00:00	12.565	0.1097
652	1/15/1993	15:00:00	12.552	0.1078
653	3/5/1995	14:00:00	12.523	0.1037
654	3/8/1975	14:00:00	12.502	0.1007
655	3/8/1974	10:00:00	12.456	0.0943
656	1/10/2005	0:00:00	12.386	0.0848
657	1/11/1980	2:00:00	12.357	0.0809
658	2/8/1976	18:00:00	12.331	0.0775
659	1/14/1978	21:00:00	12.314	0.0753
660	4/18/1995	15:00:00	12.307	0.0744
661	12/6/1986	18:00:00	12.251	0.0674
662	1/15/1993	21:00:00	12.159	0.0563
663	3/2/1978	6:00:00	12.100	0.0495
664	1/15/1993	18:00:00	12.078	0.0471
665	1/16/1993	3:00:00	12.078	0.0471
666	2/12/2003	16:00:00	12.068	0.0460
667	3/4/1983	5:00:00	12.046	0.0436
668	2/2/1998	18:00:00	12.038	0.0428
669	2/27/1991	22:00:00	11.976	0.0363
670	1/7/1993	17:00:00	11.972	0.0359
671	3/8/1974	9:00:00	11.949	0.0336
672	11/2/1974	0:00:00	11.945	0.0332
673	1/7/1993	23:00:00	11.924	0.0312
674	4/2/1974	5:00:00	11.885	0.0275
675	12/16/1987	15:00:00	11.861	0.0253
676	1/7/1993	21:00:00	11.854	0.0247
677	3/26/1991	4:00:00	11.848	0.0242
678	3/11/1995	5:00:00	11.787	0.0190
679	3/1/1981	12:00:00	11.759	0.0167
680	2/23/2005	2:00:00	11.747	0.0158
681	2/7/1976	6:00:00	11.666	0.0100
682	1/29/1980	12:00:00	11.652	0.0091
683	1/14/1993	5:00:00	11.626	0.0075
684	1/31/1979	11:00:00	11.608	0.0064
685	2/13/1998	18:00:00	11.556	0.0037
686	1/7/1993	9:00:00	11.552	0.0035
687	2/18/2005	7:00:00	11.523	0.0023
688	2/27/1983	17:00:00	11.513	0.0019
689	3/1/1978	10:00:00	11.506	0.0016
690	1/14/1993	4:00:00	11.446	0.0001

638	2/21/2005	5:00:00	11.995	0.038
639	2/7/1978	21:00:00	11.991	0.038
640	2/6/1976	2:00:00	11.847	0.024
641	1/19/1980	4:00:00	11.801	0.020
642	3/6/1980	6:00:00	11.794	0.020
643	3/2/1992	16:00:00	11.770	0.018
644	1/25/1995	12:00:00	11.763	0.017
645	12/29/1991	17:00:00	11.748	0.016
646	3/5/1995	14:00:00	11.722	0.014
647	4/20/1983	10:00:00	11.705	0.013
648	3/1/1981	8:00:00	11.649	0.009
649	3/4/1978	20:00:00	11.546	0.003
650	2/22/2005	8:00:00	11.534	0.003
651	11/24/1978	15:00:00	11.485	0.001
652	1/1/1977	15:00:00	11.455	0.000
653	1/11/2001	10:00:00	11.449	0.000
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Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{2m/2} - (0.1Q_2)^{2m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	8262
(b) ΣW_{POST} :	5821
(c) SY_{RUSLE} :	0.544
(d) SY_{NHD} :	0.861

E_p :	0.70	[(b)/(a)]
S_p :	0.64	[0.7(c)+0.3(d)]

E_p / S_p :	1.10
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 4A - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		2.013		cfs
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	42.097	11.714
2	2/20/1980	19:00:00	38.585	10.659
3	10/22/1976	17:00:00	34.075	9.297
4	10/22/1976	16:00:00	28.416	7.577
5	9/10/1976	10:00:00	27.637	7.339
6	10/31/1987	19:00:00	26.610	7.025
7	2/7/1998	17:00:00	26.536	7.003
8	2/6/1992	20:00:00	25.515	6.691
9	1/9/2005	21:00:00	25.404	6.657
10	1/29/1980	7:00:00	24.228	6.2972
11	2/19/1993	16:00:00	24.006	6.2293
12	2/2/1998	17:00:00	23.365	6.0331
13	10/20/2004	12:00:00	22.348	5.7217
14	2/13/1998	17:00:00	21.924	5.5918
15	10/27/2004	5:00:00	21.505	5.4635
16	10/18/2004	13:00:00	21.478	5.4552
17	3/6/1975	11:00:00	21.342	5.4136
18	3/1/1983	16:00:00	20.200	5.0638
19	1/31/1979	14:00:00	20.127	5.0414
20	1/9/2005	20:00:00	19.993	5.0004
21	3/2/1983	18:00:00	18.407	4.5149
22	2/15/1992	15:00:00	18.020	4.3965
23	2/21/2005	14:00:00	17.893	4.3576
24	10/10/1986	0:00:00	17.720	4.3047
25	8/17/1977	3:00:00	17.280	4.1702
26	4/18/1995	12:00:00	16.977	4.0777
27	12/4/1974	12:00:00	16.958	4.0719
28	3/3/1983	1:00:00	16.609	3.9653
29	1/18/1993	6:00:00	16.538	3.9436
30	12/28/1977	8:00:00	16.383	3.8963
31	1/13/1993	22:00:00	16.303	3.8719
32	2/20/1980	20:00:00	16.171	3.8316
33	3/4/1978	18:00:00	15.974	3.7715
34	2/18/1980	5:00:00	15.899	3.7487
35	4/23/1980	4:00:00	15.876	3.7417
36	2/15/1986	4:00:00	15.801	3.7188
37	1/31/1979	16:00:00	15.748	3.7026
38	1/31/1979	13:00:00	15.576	3.6502
39	2/16/1980	20:00:00	15.572	3.6490
40	2/12/2003	17:00:00	15.323	3.5732

Work Calculations, Post-Development Conditions				
Low flow Threshold:		2.013		cfs
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	37.876	10.445
2	2/20/1980	19:00:00	34.716	9.491
3	10/22/1976	17:00:00	30.658	8.259
4	10/22/1976	16:00:00	25.566	6.706
5	9/10/1976	10:00:00	24.866	6.492
6	10/31/1987	19:00:00	23.942	6.210
7	2/7/1998	17:00:00	23.875	6.189
8	2/6/1992	20:00:00	22.956	5.908
9	1/9/2005	21:00:00	22.857	5.878
10	1/29/1980	7:00:00	21.799	5.554
11	2/19/1993	16:00:00	21.599	5.492
12	2/2/1998	17:00:00	21.022	5.316
13	10/20/2004	12:00:00	20.107	5.035
14	2/13/1998	17:00:00	19.726	4.919
15	10/27/2004	5:00:00	19.348	4.803
16	10/18/2004	13:00:00	19.324	4.796
17	3/6/1975	11:00:00	19.202	4.758
18	3/1/1983	16:00:00	18.175	4.444
19	1/31/1979	14:00:00	18.109	4.424
20	1/9/2005	20:00:00	17.988	4.387
21	3/2/1983	18:00:00	16.561	3.951
22	2/15/1992	15:00:00	16.213	3.844
23	2/21/2005	14:00:00	16.099	3.810
24	10/10/1986	0:00:00	15.943	3.762
25	8/17/1977	3:00:00	15.548	3.642
26	4/18/1995	12:00:00	15.274	3.558
27	12/4/1974	12:00:00	15.258	3.553
28	3/3/1983	1:00:00	14.944	3.458
29	1/18/1993	6:00:00	14.880	3.438
30	12/28/1977	8:00:00	14.740	3.396
31	1/13/1993	22:00:00	14.668	3.374
32	2/20/1980	20:00:00	14.549	3.338
33	3/4/1978	18:00:00	14.372	3.284
34	2/18/1980	5:00:00	14.305	3.264
35	4/23/1980	4:00:00	14.284	3.257
36	2/15/1986	4:00:00	14.216	3.237
37	1/31/1979	16:00:00	14.169	3.222
38	1/31/1979	13:00:00	14.014	3.175
39	2/16/1980	20:00:00	14.010	3.174
40	2/12/2003	17:00:00	13.787	3.107

41	1/31/1979	8:00:00	14.951	3.4600
42	3/3/1983	6:00:00	14.816	3.4189
43	2/25/2003	17:00:00	14.403	3.2935
44	1/9/1980	13:00:00	14.309	3.2649
45	2/16/1998	17:00:00	13.975	3.1636
46	5/1/1978	5:00:00	13.580	3.0440
47	3/5/2005	0:00:00	13.562	3.0385
48	10/20/2004	16:00:00	13.513	3.0237
49	10/20/2004	15:00:00	13.485	3.0152
50	10/27/2004	14:00:00	13.467	3.0098
51	10/20/2004	13:00:00	13.429	2.9983
52	2/15/1986	6:00:00	12.961	2.8569
53	1/11/2005	4:00:00	12.900	2.8385
54	11/25/1985	7:00:00	12.886	2.8343
55	10/27/2004	8:00:00	12.810	2.8113
56	12/29/2004	4:00:00	12.730	2.7872
57	2/23/2005	4:00:00	12.721	2.7845
58	2/15/1986	5:00:00	12.670	2.7691
59	10/28/1974	12:00:00	12.646	2.7619
60	3/16/1986	21:00:00	12.625	2.7556
61	12/29/2004	2:00:00	12.488	2.7143
62	1/25/1995	19:00:00	12.479	2.7116
63	10/27/2004	7:00:00	12.456	2.7047
64	10/19/2004	8:00:00	12.329	2.6665
65	2/21/2005	11:00:00	12.298	2.6572
66	3/21/1983	5:00:00	12.287	2.6539
67	4/4/2006	23:00:00	12.164	2.6169
68	3/11/1995	4:00:00	12.100	2.5977
69	11/22/1996	3:00:00	12.057	2.5848
70	11/12/2003	7:00:00	12.001	2.5680
71	2/27/1978	22:00:00	11.943	2.5506
72	10/28/1974	11:00:00	11.922	2.5443
73	1/27/2008	2:00:00	11.873	2.5296
74	12/28/1977	13:00:00	11.863	2.5266
75	10/27/2004	6:00:00	11.857	2.5248
76	12/25/2003	19:00:00	11.835	2.5182
77	1/8/1998	17:00:00	11.766	2.4975
78	2/13/1978	11:00:00	11.682	2.4723
79	2/10/1978	6:00:00	11.650	2.4627
80	2/10/1978	5:00:00	11.636	2.4586
81	3/1/1981	14:00:00	11.577	2.4409
82	2/19/1980	22:00:00	11.565	2.4373
83	3/5/1995	20:00:00	11.555	2.4343
84	1/15/1978	4:00:00	11.517	2.4229
85	4/5/2006	7:00:00	11.489	2.4146
86	12/28/2004	22:00:00	11.480	2.4119
87	2/18/1980	9:00:00	11.452	2.4035
88	10/27/2004	10:00:00	11.431	2.3972
89	1/10/1978	8:00:00	11.386	2.3838
90	3/5/1995	17:00:00	11.367	2.3781
91	12/18/1988	14:00:00	11.355	2.3745

41	1/31/1979	8:00:00	13.452	3.005
42	3/3/1983	6:00:00	13.331	2.969
43	2/25/2003	17:00:00	12.959	2.856
44	1/9/1980	13:00:00	12.874	2.831
45	2/16/1998	17:00:00	12.574	2.740
46	5/1/1978	5:00:00	12.219	2.633
47	3/5/2005	0:00:00	12.202	2.628
48	10/20/2004	16:00:00	12.158	2.615
49	10/20/2004	15:00:00	12.133	2.608
50	10/27/2004	14:00:00	12.116	2.602
51	10/20/2004	13:00:00	12.082	2.592
52	2/15/1986	6:00:00	11.661	2.466
53	1/11/2005	4:00:00	11.607	2.450
54	11/25/1985	7:00:00	11.594	2.446
55	10/27/2004	8:00:00	11.525	2.425
56	12/29/2004	4:00:00	11.454	2.404
57	2/23/2005	4:00:00	11.446	2.402
58	2/15/1986	5:00:00	11.399	2.388
59	10/28/1974	12:00:00	11.378	2.381
60	3/16/1986	21:00:00	11.359	2.376
61	12/29/2004	2:00:00	11.236	2.339
62	1/25/1995	19:00:00	11.228	2.337
63	10/27/2004	7:00:00	11.207	2.330
64	10/19/2004	8:00:00	11.093	2.296
65	2/21/2005	11:00:00	11.065	2.288
66	3/21/1983	5:00:00	11.055	2.285
67	4/4/2006	23:00:00	10.945	2.252
68	3/11/1995	4:00:00	10.887	2.235
69	11/22/1996	3:00:00	10.848	2.223
70	11/12/2003	7:00:00	10.798	2.209
71	2/27/1978	22:00:00	10.746	2.193
72	10/28/1974	11:00:00	10.727	2.187
73	1/27/2008	2:00:00	10.682	2.174
74	12/28/1977	13:00:00	10.673	2.171
75	10/27/2004	6:00:00	10.669	2.170
76	12/25/2003	19:00:00	10.648	2.164
77	1/8/1998	17:00:00	10.586	2.146
78	2/13/1978	11:00:00	10.511	2.123
79	2/10/1978	6:00:00	10.482	2.115
80	2/10/1978	5:00:00	10.470	2.111
81	3/1/1981	14:00:00	10.416	2.095
82	2/19/1980	22:00:00	10.405	2.092
83	3/5/1995	20:00:00	10.397	2.090
84	1/15/1978	4:00:00	10.362	2.079
85	4/5/2006	7:00:00	10.337	2.072
86	12/28/2004	22:00:00	10.329	2.069
87	2/18/1980	9:00:00	10.304	2.062
88	10/27/2004	10:00:00	10.285	2.056
89	1/10/1978	8:00:00	10.245	2.045
90	3/5/1995	17:00:00	10.227	2.039
91	12/18/1988	14:00:00	10.217	2.036

92	2/19/1980	16:00:00	11.346	2.3718
93	1/29/1980	20:00:00	11.320	2.3641
94	2/15/1986	3:00:00	11.317	2.3632
95	1/11/1980	13:00:00	11.294	2.3563
96	2/27/1983	19:00:00	11.287	2.3542
97	3/1/1983	17:00:00	11.235	2.3387
98	3/2/1983	19:00:00	11.234	2.3384
99	3/2/1983	17:00:00	11.229	2.3369
100	1/29/1980	18:00:00	11.219	2.3339
101	3/27/1998	17:00:00	11.218	2.3336
102	2/9/1976	1:00:00	11.186	2.3241
103	2/8/1976	22:00:00	11.149	2.3130
104	3/11/2006	1:00:00	11.130	2.3074
105	2/8/1976	21:00:00	11.127	2.3065
106	1/11/2005	5:00:00	11.113	2.3023
107	1/11/1980	7:00:00	11.112	2.3020
108	12/23/1982	1:00:00	11.084	2.2937
109	3/6/1980	5:00:00	11.053	2.2844
110	2/26/1983	15:00:00	11.043	2.2814
111	1/31/1979	12:00:00	11.007	2.2707
112	2/16/1980	19:00:00	10.999	2.2683
113	11/12/2003	6:00:00	10.986	2.2645
114	1/14/1978	20:00:00	10.826	2.2169
115	12/18/1978	18:00:00	10.750	2.1943
116	2/11/2005	16:00:00	10.738	2.1907
117	2/21/2005	13:00:00	10.702	2.1800
118	3/2/1992	15:00:00	10.675	2.1720
119	2/7/1976	4:00:00	10.579	2.1435
120	12/7/1992	17:00:00	10.551	2.1352
121	2/1/1996	2:00:00	10.523	2.1269
122	10/14/2006	0:00:00	10.479	2.1138
123	1/12/1997	17:00:00	10.477	2.1132
124	2/28/1978	20:00:00	10.374	2.0827
125	3/16/1986	11:00:00	10.315	2.0653
126	11/11/1985	11:00:00	10.268	2.0514
127	2/14/1980	17:00:00	10.248	2.0455
128	2/28/2006	0:00:00	10.241	2.0434
129	1/12/2001	12:00:00	10.218	2.0366
130	12/4/1987	22:00:00	10.181	2.0257
131	1/7/2008	1:00:00	9.987	1.9684
132	12/25/1988	1:00:00	9.981	1.9666
133	11/20/1983	12:00:00	9.960	1.9604
134	12/28/2004	19:00:00	9.900	1.9428
135	10/20/2004	14:00:00	9.872	1.9345
136	2/9/1981	2:00:00	9.864	1.9322
137	11/30/2007	23:00:00	9.831	1.9225
138	1/10/1995	20:00:00	9.821	1.9195
139	1/31/1979	6:00:00	9.759	1.9013
140	2/19/2007	13:00:00	9.718	1.8892
141	3/13/1996	9:00:00	9.708	1.8863
142	1/16/1979	2:00:00	9.702	1.8845

92	2/19/1980	16:00:00	10.208	2.034
93	1/29/1980	20:00:00	10.185	2.027
94	2/15/1986	3:00:00	10.183	2.026
95	1/11/1980	13:00:00	10.161	2.020
96	2/27/1983	19:00:00	10.155	2.018
97	3/1/1983	17:00:00	10.108	2.004
98	3/2/1983	19:00:00	10.108	2.004
99	3/2/1983	17:00:00	10.103	2.003
100	1/29/1980	18:00:00	10.094	2.000
101	3/27/1998	17:00:00	10.093	2.000
102	2/9/1976	1:00:00	10.064	1.991
103	2/8/1976	22:00:00	10.031	1.981
104	3/11/2006	1:00:00	10.014	1.976
105	2/8/1976	21:00:00	10.011	1.975
106	1/11/1980	7:00:00	9.998	1.972
107	1/11/2005	5:00:00	9.998	1.972
108	12/23/1982	1:00:00	9.972	1.964
109	3/6/1980	5:00:00	9.944	1.956
110	2/26/1983	15:00:00	9.936	1.953
111	1/31/1979	12:00:00	9.903	1.944
112	2/16/1980	19:00:00	9.896	1.942
113	11/12/2003	6:00:00	9.884	1.938
114	1/14/1978	20:00:00	9.741	1.896
115	12/18/1978	18:00:00	9.672	1.876
116	2/11/2005	16:00:00	9.661	1.872
117	2/21/2005	13:00:00	9.629	1.863
118	3/2/1992	15:00:00	9.605	1.856
119	2/7/1976	4:00:00	9.518	1.831
120	12/7/1992	17:00:00	9.493	1.823
121	2/1/1996	2:00:00	9.468	1.816
122	10/14/2006	0:00:00	9.428	1.804
123	1/12/1997	17:00:00	9.427	1.804
124	2/28/1978	20:00:00	9.334	1.777
125	3/16/1986	11:00:00	9.281	1.761
126	11/11/1985	11:00:00	9.239	1.749
127	2/14/1980	17:00:00	9.220	1.743
128	2/28/2006	0:00:00	9.214	1.742
129	1/12/2001	12:00:00	9.194	1.736
130	12/4/1987	22:00:00	9.160	1.726
131	1/7/2008	1:00:00	8.985	1.675
132	12/25/1988	1:00:00	8.980	1.673
133	11/20/1983	12:00:00	8.962	1.668
134	12/28/2004	19:00:00	8.907	1.652
135	10/20/2004	14:00:00	8.882	1.645
136	2/9/1981	2:00:00	8.875	1.643
137	11/30/2007	23:00:00	8.845	1.634
138	1/10/1995	20:00:00	8.836	1.632
139	1/31/1979	6:00:00	8.781	1.616
140	2/19/2007	13:00:00	8.743	1.605
141	3/13/1996	9:00:00	8.734	1.602
142	1/16/1979	2:00:00	8.730	1.601

143	3/5/1995	18:00:00	9.646	1.8681
144	3/6/1980	10:00:00	9.567	1.8449
145	2/27/1983	18:00:00	9.486	1.8212
146	10/27/2004	9:00:00	9.464	1.8147
147	2/14/2001	17:00:00	9.449	1.8103
148	10/10/1986	4:00:00	9.441	1.8080
149	2/8/1994	7:00:00	9.381	1.7904
150	4/15/1976	21:00:00	9.291	1.7641
151	1/17/1990	3:00:00	9.229	1.7460
152	1/6/2008	7:00:00	9.224	1.7446
153	1/18/1993	14:00:00	9.200	1.7375
154	3/18/1983	23:00:00	9.135	1.7186
155	1/9/2005	5:00:00	9.111	1.7116
156	2/5/1978	15:00:00	9.105	1.7099
157	1/4/2005	4:00:00	9.083	1.7034
158	2/23/2004	17:00:00	8.995	1.6778
159	2/14/1995	11:00:00	8.940	1.6618
160	12/25/1988	0:00:00	8.911	1.6534
161	2/21/2005	12:00:00	8.895	1.6488
162	11/11/1978	22:00:00	8.679	1.5862
163	3/5/2005	1:00:00	8.635	1.5734
164	3/15/1986	23:00:00	8.616	1.5679
165	4/28/2005	23:00:00	8.616	1.5679
166	2/13/1992	6:00:00	8.610	1.5662
167	10/28/1974	13:00:00	8.609	1.5659
168	12/18/1984	18:00:00	8.600	1.5633
169	12/7/1992	14:00:00	8.542	1.5466
170	11/25/1985	1:00:00	8.529	1.5428
171	2/8/1983	6:00:00	8.527	1.5422
172	1/29/1983	1:00:00	8.522	1.5408
173	9/10/1976	9:00:00	8.516	1.5391
174	3/24/1998	17:00:00	8.384	1.5010
175	1/27/1983	11:00:00	8.315	1.4812
176	1/4/1974	20:00:00	8.187	1.4444
177	3/1/1991	9:00:00	8.174	1.4407
178	3/1/1991	7:00:00	8.119	1.4250
179	2/14/1995	10:00:00	8.104	1.4207
180	5/9/1977	0:00:00	8.053	1.4061
181	2/19/1993	17:00:00	7.978	1.3847
182	11/25/1983	0:00:00	7.966	1.3812
183	4/20/1988	9:00:00	7.937	1.3730
184	2/5/1976	2:00:00	7.932	1.3715
185	3/5/1995	19:00:00	7.915	1.3667
186	3/11/2006	3:00:00	7.870	1.3539
187	3/19/1981	23:00:00	7.813	1.3376
188	3/22/2005	23:00:00	7.765	1.3240
189	11/20/1983	11:00:00	7.711	1.3087
190	4/5/2006	2:00:00	7.711	1.3087
191	3/5/1995	16:00:00	7.698	1.3050
192	12/18/1984	16:00:00	7.682	1.3004
193	10/19/2004	16:00:00	7.656	1.2931

143	3/5/1995	18:00:00	8.679	1.586
144	3/6/1980	10:00:00	8.607	1.565
145	2/27/1983	18:00:00	8.535	1.545
146	10/27/2004	9:00:00	8.515	1.539
147	2/14/2001	17:00:00	8.502	1.535
148	10/10/1986	4:00:00	8.495	1.533
149	2/8/1994	7:00:00	8.440	1.517
150	4/15/1976	21:00:00	8.360	1.494
151	1/17/1990	3:00:00	8.304	1.478
152	1/6/2008	7:00:00	8.299	1.477
153	1/18/1993	14:00:00	8.277	1.470
154	3/18/1983	23:00:00	8.219	1.454
155	1/9/2005	5:00:00	8.198	1.448
156	2/5/1978	15:00:00	8.192	1.446
157	1/4/2005	4:00:00	8.172	1.440
158	2/23/2004	17:00:00	8.093	1.418
159	2/14/1995	11:00:00	8.043	1.403
160	12/25/1988	0:00:00	8.018	1.396
161	2/21/2005	12:00:00	8.003	1.392
162	11/11/1978	22:00:00	7.809	1.337
163	3/5/2005	1:00:00	7.769	1.325
164	3/15/1986	23:00:00	7.752	1.320
165	4/28/2005	23:00:00	7.752	1.320
166	2/13/1992	6:00:00	7.747	1.319
167	10/28/1974	13:00:00	7.746	1.319
168	12/18/1984	18:00:00	7.738	1.316
169	12/7/1992	14:00:00	7.685	1.301
170	11/25/1985	1:00:00	7.674	1.298
171	2/8/1983	6:00:00	7.672	1.298
172	1/29/1983	1:00:00	7.667	1.296
173	9/10/1976	9:00:00	7.662	1.295
174	3/24/1998	17:00:00	7.544	1.261
175	1/27/1983	11:00:00	7.481	1.244
176	1/4/1974	20:00:00	7.366	1.211
177	3/1/1991	9:00:00	7.355	1.208
178	3/1/1991	7:00:00	7.305	1.194
179	2/14/1995	10:00:00	7.291	1.190
180	5/9/1977	0:00:00	7.245	1.177
181	2/19/1993	17:00:00	7.178	1.158
182	11/25/1983	0:00:00	7.167	1.155
183	4/20/1988	9:00:00	7.141	1.148
184	2/5/1976	2:00:00	7.137	1.147
185	3/5/1995	19:00:00	7.122	1.143
186	3/11/2006	3:00:00	7.081	1.131
187	3/19/1981	23:00:00	7.029	1.117
188	3/22/2005	23:00:00	6.987	1.105
189	11/20/1983	11:00:00	6.938	1.092
190	4/5/2006	2:00:00	6.938	1.092
191	3/5/1995	16:00:00	6.926	1.088
192	12/18/1984	16:00:00	6.912	1.084
193	10/19/2004	16:00:00	6.889	1.078

194	2/19/2007	12:00:00	7.619	1.2826
195	2/27/1983	6:00:00	7.604	1.2784
196	9/25/1986	6:00:00	7.599	1.2769
197	1/16/1993	11:00:00	7.568	1.2682
198	1/16/1993	10:00:00	7.565	1.2673
199	12/17/2002	17:00:00	7.563	1.2668
200	1/16/1993	9:00:00	7.550	1.2631
201	11/8/2004	1:00:00	7.549	1.2628
202	12/9/1996	19:00:00	7.529	1.2572
203	1/11/2005	8:00:00	7.528	1.2569
204	1/11/2005	3:00:00	7.515	1.2532
205	2/23/1998	17:00:00	7.506	1.2507
206	2/26/2004	17:00:00	7.506	1.2507
207	1/15/1993	16:00:00	7.481	1.2436
208	1/15/1993	14:00:00	7.473	1.2414
209	12/27/1984	19:00:00	7.471	1.2408
210	1/8/1993	0:00:00	7.426	1.2281
211	3/2/1992	17:00:00	7.416	1.2253
212	3/11/1975	14:00:00	7.392	1.2185
213	1/8/1974	3:00:00	7.374	1.2135
214	2/13/1978	13:00:00	7.360	1.2095
215	12/29/1976	14:00:00	7.353	1.2076
216	2/13/1978	0:00:00	7.349	1.2064
217	11/12/2003	9:00:00	7.335	1.2025
218	2/8/1983	7:00:00	7.324	1.1994
219	1/7/1974	18:00:00	7.320	1.1983
220	3/5/1978	8:00:00	7.314	1.1966
221	2/23/2005	1:00:00	7.286	1.1888
222	1/7/1993	4:00:00	7.270	1.1843
223	1/7/1993	3:00:00	7.250	1.1787
224	1/17/1978	3:00:00	7.241	1.1761
225	3/12/1978	2:00:00	7.226	1.1719
226	1/11/2001	8:00:00	7.212	1.1680
227	1/7/1993	0:00:00	7.201	1.1649
228	3/12/1978	1:00:00	7.200	1.1646
229	1/28/1980	22:00:00	7.176	1.1579
230	3/12/1978	0:00:00	7.169	1.1560
231	11/24/1978	13:00:00	7.167	1.1554
232	2/21/1980	5:00:00	7.165	1.1549
233	12/4/1974	11:00:00	7.140	1.1479
234	2/21/1980	1:00:00	7.119	1.1420
235	1/15/1978	6:00:00	7.093	1.1347
236	2/20/1980	18:00:00	7.063	1.1264
237	2/1/1996	4:00:00	7.054	1.1239
238	2/10/1978	4:00:00	7.005	1.1102
239	1/15/1978	3:00:00	6.993	1.1069
240	1/6/1979	3:00:00	6.974	1.1016
241	3/11/1986	2:00:00	6.955	1.0963
242	2/18/1980	6:00:00	6.953	1.0958
243	1/15/1978	2:00:00	6.946	1.0938
244	11/25/1985	4:00:00	6.926	1.0883

194	2/19/2007	12:00:00	6.855	1.069
195	2/27/1983	6:00:00	6.842	1.065
196	9/25/1986	6:00:00	6.837	1.064
197	1/16/1993	11:00:00	6.809	1.056
198	1/16/1993	10:00:00	6.806	1.055
199	12/17/2002	17:00:00	6.804	1.054
200	1/16/1993	9:00:00	6.793	1.051
201	11/8/2004	1:00:00	6.792	1.051
202	12/9/1996	19:00:00	6.774	1.046
203	1/11/2005	8:00:00	6.773	1.046
204	1/11/2005	3:00:00	6.761	1.043
205	2/23/1998	17:00:00	6.754	1.041
206	2/26/2004	17:00:00	6.754	1.041
207	1/15/1993	16:00:00	6.731	1.034
208	1/15/1993	14:00:00	6.724	1.032
209	12/27/1984	19:00:00	6.721	1.032
210	1/8/1993	0:00:00	6.681	1.021
211	3/2/1992	17:00:00	6.672	1.018
212	3/11/1975	14:00:00	6.651	1.012
213	1/8/1974	3:00:00	6.634	1.008
214	2/13/1978	13:00:00	6.622	1.004
215	12/29/1976	14:00:00	6.615	1.002
216	2/13/1978	0:00:00	6.612	1.002
217	11/12/2003	9:00:00	6.600	0.998
218	2/8/1983	7:00:00	6.589	0.995
219	1/7/1974	18:00:00	6.586	0.994
220	3/5/1978	8:00:00	6.581	0.993
221	2/23/2005	1:00:00	6.555	0.986
222	1/7/1993	4:00:00	6.541	0.982
223	1/7/1993	3:00:00	6.523	0.977
224	1/17/1978	3:00:00	6.515	0.975
225	3/12/1978	2:00:00	6.501	0.971
226	1/11/2001	8:00:00	6.489	0.968
227	1/7/1993	0:00:00	6.479	0.965
228	3/12/1978	1:00:00	6.478	0.965
229	1/28/1980	22:00:00	6.456	0.959
230	3/12/1978	0:00:00	6.450	0.957
231	11/24/1978	13:00:00	6.448	0.957
232	2/21/1980	5:00:00	6.447	0.956
233	12/4/1974	11:00:00	6.424	0.950
234	2/21/1980	1:00:00	6.405	0.945
235	1/15/1978	6:00:00	6.381	0.938
236	2/20/1980	18:00:00	6.355	0.931
237	2/1/1996	4:00:00	6.347	0.929
238	2/10/1978	4:00:00	6.302	0.917
239	1/15/1978	3:00:00	6.292	0.914
240	1/6/1979	3:00:00	6.275	0.910
241	3/11/1986	2:00:00	6.257	0.905
242	2/18/1980	6:00:00	6.256	0.904
243	1/15/1978	2:00:00	6.249	0.903
244	11/25/1985	4:00:00	6.232	0.898

245	1/14/1990	4:00:00	6.907	1.0830
246	2/22/1998	17:00:00	6.907	1.0830
247	1/15/1978	1:00:00	6.881	1.0758
248	2/7/1978	19:00:00	6.866	1.0716
249	3/24/1983	4:00:00	6.864	1.0711
250	3/5/1978	5:00:00	6.861	1.0702
251	2/18/1980	4:00:00	6.823	1.0597
252	3/16/1986	17:00:00	6.823	1.0597
253	1/29/1980	19:00:00	6.819	1.0586
254	1/29/1980	23:00:00	6.803	1.0542
255	1/11/1980	12:00:00	6.783	1.0487
256	1/4/1987	19:00:00	6.775	1.0465
257	1/16/1978	23:00:00	6.770	1.0451
258	1/27/1983	13:00:00	6.753	1.0404
259	12/19/1978	9:00:00	6.749	1.0393
260	1/31/1996	22:00:00	6.737	1.0360
261	1/28/2005	17:00:00	6.728	1.0335
262	1/11/1980	9:00:00	6.721	1.0315
263	1/18/1979	18:00:00	6.709	1.0282
264	1/5/1974	2:00:00	6.702	1.0263
265	4/20/1983	12:00:00	6.702	1.0263
266	3/2/1978	10:00:00	6.691	1.0233
267	3/2/1981	2:00:00	6.688	1.0225
268	11/24/1978	7:00:00	6.687	1.0222
269	2/9/1976	3:00:00	6.650	1.0120
270	12/3/1983	17:00:00	6.637	1.0084
271	1/7/1993	16:00:00	6.628	1.0060
272	1/29/1980	13:00:00	6.624	1.0049
273	3/5/1978	16:00:00	6.618	1.0032
274	2/8/1976	19:00:00	6.605	0.9996
275	1/5/1974	1:00:00	6.600	0.9983
276	12/7/1992	13:00:00	6.596	0.9972
277	3/11/2006	13:00:00	6.560	0.9873
278	4/20/1983	11:00:00	6.559	0.9870
279	1/3/2005	10:00:00	6.556	0.9862
280	2/11/1978	12:00:00	6.548	0.9840
281	11/4/1987	23:00:00	6.538	0.9813
282	1/19/1980	3:00:00	6.501	0.9711
283	1/11/1980	1:00:00	6.480	0.9654
284	1/5/1974	0:00:00	6.468	0.9621
285	2/8/1994	8:00:00	6.461	0.9602
286	2/19/2007	16:00:00	6.456	0.9588
287	12/18/1978	23:00:00	6.433	0.9526
288	2/12/2005	16:00:00	6.432	0.9523
289	3/1/1978	11:00:00	6.427	0.9509
290	12/20/2002	17:00:00	6.423	0.9498
291	2/7/1976	5:00:00	6.412	0.9468
292	3/1/1991	10:00:00	6.410	0.9463
293	3/1/1978	9:00:00	6.365	0.9340
294	3/1/1991	8:00:00	6.360	0.9327
295	2/7/1998	16:00:00	6.349	0.9297

245	1/14/1990	4:00:00	6.214	0.893
246	2/22/1998	17:00:00	6.214	0.893
247	1/15/1978	1:00:00	6.191	0.887
248	2/7/1978	19:00:00	6.178	0.883
249	3/24/1983	4:00:00	6.175	0.883
250	3/5/1978	5:00:00	6.173	0.882
251	2/18/1980	4:00:00	6.139	0.873
252	3/16/1986	17:00:00	6.139	0.873
253	1/29/1980	19:00:00	6.135	0.872
254	1/29/1980	23:00:00	6.121	0.868
255	1/11/1980	12:00:00	6.103	0.863
256	1/4/1987	19:00:00	6.096	0.861
257	1/16/1978	23:00:00	6.091	0.860
258	1/27/1983	13:00:00	6.076	0.856
259	12/19/1978	9:00:00	6.072	0.855
260	1/31/1996	22:00:00	6.062	0.852
261	1/28/2005	17:00:00	6.053	0.850
262	1/11/1980	9:00:00	6.047	0.848
263	1/18/1979	18:00:00	6.036	0.845
264	1/5/1974	2:00:00	6.030	0.844
265	4/20/1983	12:00:00	6.030	0.844
266	3/2/1978	10:00:00	6.020	0.841
267	3/2/1981	2:00:00	6.018	0.840
268	11/24/1978	7:00:00	6.016	0.840
269	2/9/1976	3:00:00	5.983	0.831
270	12/3/1983	17:00:00	5.971	0.828
271	1/7/1993	16:00:00	5.963	0.826
272	1/29/1980	13:00:00	5.960	0.825
273	3/5/1978	16:00:00	5.954	0.823
274	2/8/1976	19:00:00	5.943	0.820
275	1/5/1974	1:00:00	5.938	0.819
276	12/7/1992	13:00:00	5.935	0.818
277	3/11/2006	13:00:00	5.902	0.809
278	4/20/1983	11:00:00	5.901	0.809
279	1/3/2005	10:00:00	5.898	0.808
280	2/11/1978	12:00:00	5.891	0.806
281	11/4/1987	23:00:00	5.883	0.804
282	1/19/1980	3:00:00	5.849	0.795
283	1/11/1980	1:00:00	5.831	0.790
284	1/5/1974	0:00:00	5.819	0.787
285	2/8/1994	8:00:00	5.813	0.786
286	2/19/2007	16:00:00	5.809	0.785
287	12/18/1978	23:00:00	5.788	0.779
288	2/12/2005	16:00:00	5.787	0.779
289	3/1/1978	11:00:00	5.782	0.777
290	12/20/2002	17:00:00	5.779	0.777
291	2/7/1976	5:00:00	5.769	0.774
292	3/1/1991	10:00:00	5.768	0.774
293	3/1/1978	9:00:00	5.727	0.763
294	3/1/1991	8:00:00	5.723	0.762
295	2/7/1998	16:00:00	5.712	0.759

296	1/29/1980	9:00:00	6.335	0.9259
297	3/1/1978	8:00:00	6.324	0.9229
298	1/31/1979	10:00:00	6.319	0.9215
299	3/11/1978	23:00:00	6.315	0.9204
300	1/11/2005	2:00:00	6.315	0.9204
301	3/1/1978	7:00:00	6.278	0.9104
302	3/5/1995	22:00:00	6.275	0.9096
303	1/4/1974	23:00:00	6.274	0.9093
304	2/8/1993	21:00:00	6.272	0.9088
305	3/24/1994	23:00:00	6.270	0.9082
306	2/12/2005	8:00:00	6.252	0.9033
307	1/6/1992	12:00:00	6.243	0.9009
308	3/5/1995	21:00:00	6.236	0.8990
309	2/22/2008	7:00:00	6.222	0.8952
310	11/23/1973	3:00:00	6.219	0.8944
311	12/5/2004	15:00:00	6.201	0.8895
312	1/31/1979	9:00:00	6.186	0.8855
313	2/27/1996	23:00:00	6.180	0.8839
314	11/23/1973	0:00:00	6.134	0.8715
315	1/29/1980	5:00:00	6.116	0.8666
316	1/12/1993	16:00:00	6.069	0.8540
317	2/6/1976	7:00:00	6.062	0.8521
318	3/11/1995	7:00:00	6.056	0.8505
319	3/10/1980	18:00:00	6.000	0.8355
320	1/13/1993	21:00:00	5.992	0.8333
321	1/29/1980	4:00:00	5.983	0.8309
322	3/28/1979	21:00:00	5.969	0.8272
323	4/7/1978	5:00:00	5.912	0.8119
324	11/4/1987	19:00:00	5.875	0.8021
325	1/12/1993	19:00:00	5.860	0.7981
326	2/5/1978	18:00:00	5.825	0.7888
327	3/2/1983	16:00:00	5.817	0.7867
328	4/14/1998	17:00:00	5.785	0.7782
329	1/5/1978	22:00:00	5.783	0.7776
330	3/1/1978	6:00:00	5.747	0.7681
331	10/19/2004	18:00:00	5.743	0.7671
332	12/29/2004	6:00:00	5.732	0.7641
333	2/20/1980	5:00:00	5.728	0.7631
334	4/2/1974	6:00:00	5.721	0.7612
335	1/31/1979	7:00:00	5.717	0.7602
336	1/15/1993	19:00:00	5.702	0.7562
337	11/24/1978	3:00:00	5.697	0.7549
338	1/29/1980	2:00:00	5.655	0.7438
339	1/9/2005	23:00:00	5.627	0.7365
340	3/5/1995	13:00:00	5.602	0.7299
341	12/17/1978	23:00:00	5.595	0.7281
342	1/4/1974	21:00:00	5.578	0.7236
343	2/11/2003	17:00:00	5.567	0.7207
344	3/16/1986	22:00:00	5.540	0.7137
345	1/9/1978	19:00:00	5.539	0.7134
346	3/1/1983	15:00:00	5.520	0.7084

296	1/29/1980	9:00:00	5.700	0.756
297	3/1/1978	8:00:00	5.690	0.753
298	1/31/1979	10:00:00	5.686	0.752
299	3/11/1978	23:00:00	5.681	0.751
300	1/11/2005	2:00:00	5.681	0.751
301	3/1/1978	7:00:00	5.649	0.742
302	1/4/1974	23:00:00	5.645	0.741
303	3/5/1995	22:00:00	5.645	0.741
304	2/8/1993	21:00:00	5.643	0.741
305	3/24/1994	23:00:00	5.641	0.740
306	2/12/2005	8:00:00	5.625	0.736
307	1/6/1992	12:00:00	5.617	0.734
308	3/5/1995	21:00:00	5.611	0.732
309	2/22/2008	7:00:00	5.598	0.729
310	11/23/1973	3:00:00	5.595	0.728
311	12/5/2004	15:00:00	5.579	0.724
312	1/31/1979	9:00:00	5.566	0.720
313	2/27/1996	23:00:00	5.560	0.719
314	11/23/1973	0:00:00	5.519	0.708
315	1/29/1980	5:00:00	5.503	0.704
316	1/12/1993	16:00:00	5.461	0.693
317	2/6/1976	7:00:00	5.454	0.691
318	3/11/1995	7:00:00	5.449	0.690
319	3/10/1980	18:00:00	5.398	0.677
320	1/13/1993	21:00:00	5.391	0.675
321	1/29/1980	4:00:00	5.383	0.673
322	3/28/1979	21:00:00	5.370	0.669
323	4/7/1978	5:00:00	5.319	0.656
324	11/4/1987	19:00:00	5.285	0.647
325	1/12/1993	19:00:00	5.272	0.644
326	2/5/1978	18:00:00	5.241	0.636
327	3/2/1983	16:00:00	5.234	0.634
328	4/14/1998	17:00:00	5.205	0.627
329	1/5/1978	22:00:00	5.203	0.626
330	3/1/1978	6:00:00	5.171	0.618
331	10/19/2004	18:00:00	5.167	0.617
332	12/29/2004	6:00:00	5.158	0.615
333	2/20/1980	5:00:00	5.154	0.614
334	4/2/1974	6:00:00	5.148	0.612
335	1/31/1979	7:00:00	5.144	0.611
336	1/15/1993	19:00:00	5.130	0.608
337	11/24/1978	3:00:00	5.126	0.607
338	1/29/1980	2:00:00	5.088	0.597
339	1/9/2005	23:00:00	5.063	0.591
340	3/5/1995	13:00:00	5.040	0.585
341	12/17/1978	23:00:00	5.034	0.583
342	1/4/1974	21:00:00	5.018	0.579
343	2/11/2003	17:00:00	5.009	0.577
344	1/9/1978	19:00:00	4.984	0.571
345	3/16/1986	22:00:00	4.984	0.571
346	3/1/1983	15:00:00	4.967	0.566

347	2/22/2005	22:00:00	5.514	0.7069
348	2/14/1995	12:00:00	5.498	0.7027
349	1/7/1993	8:00:00	5.497	0.7024
350	1/29/1983	2:00:00	5.495	0.7019
351	12/6/1998	7:00:00	5.483	0.6988
352	3/5/1995	12:00:00	5.447	0.6894
353	1/25/1995	23:00:00	5.426	0.6839
354	4/5/2006	1:00:00	5.380	0.6720
355	3/10/1986	21:00:00	5.371	0.6697
356	1/6/1993	22:00:00	5.358	0.6663
357	12/11/1984	11:00:00	5.350	0.6642
358	3/5/1981	18:00:00	5.307	0.6531
359	12/11/1984	10:00:00	5.301	0.6516
360	12/27/1984	4:00:00	5.242	0.6364
361	2/1/1996	3:00:00	5.237	0.6351
362	11/24/1984	22:00:00	5.236	0.6349
363	3/12/1995	0:00:00	5.221	0.6310
364	2/21/2005	7:00:00	5.193	0.6238
365	8/17/1977	1:00:00	5.187	0.6223
366	1/31/1996	21:00:00	5.163	0.6162
367	1/14/1990	5:00:00	5.156	0.6144
368	2/7/1978	18:00:00	5.152	0.6134
369	12/18/1984	19:00:00	5.126	0.6067
370	10/31/1987	18:00:00	5.099	0.5999
371	1/5/1992	16:00:00	5.075	0.5938
372	12/19/1978	7:00:00	5.072	0.5930
373	12/7/1992	15:00:00	5.065	0.5912
374	3/26/1991	3:00:00	5.058	0.5895
375	2/28/2006	2:00:00	5.035	0.5836
376	1/27/2008	3:00:00	5.007	0.5766
377	1/26/1997	3:00:00	4.995	0.5735
378	1/14/1978	19:00:00	4.973	0.5680
379	1/11/2001	7:00:00	4.942	0.5602
380	1/6/1993	14:00:00	4.926	0.5562
381	2/5/1976	17:00:00	4.917	0.5539
382	2/20/1993	7:00:00	4.904	0.5506
383	11/21/2004	8:00:00	4.887	0.5464
384	2/2/1998	16:00:00	4.886	0.5461
385	12/18/1984	17:00:00	4.881	0.5449
386	1/10/1995	21:00:00	4.877	0.5439
387	1/18/1979	8:00:00	4.806	0.5262
388	1/5/1992	15:00:00	4.781	0.5200
389	3/2/1992	10:00:00	4.737	0.5091
390	3/1/1981	5:00:00	4.715	0.5037
391	10/27/2004	15:00:00	4.706	0.5014
392	1/7/2008	3:00:00	4.700	0.5000
393	5/2/1980	0:00:00	4.693	0.4982
394	11/29/1985	15:00:00	4.674	0.4936
395	2/8/1976	17:00:00	4.669	0.4923
396	3/1/1991	11:00:00	4.643	0.4860
397	9/3/1976	17:00:00	4.604	0.4764

347	2/22/2005	22:00:00	4.961	0.565
348	2/14/1995	12:00:00	4.947	0.561
349	1/7/1993	8:00:00	4.945	0.561
350	1/29/1983	2:00:00	4.944	0.561
351	12/6/1998	7:00:00	4.933	0.558
352	3/5/1995	12:00:00	4.901	0.550
353	1/25/1995	23:00:00	4.882	0.545
354	4/5/2006	1:00:00	4.841	0.535
355	3/10/1986	21:00:00	4.832	0.533
356	1/6/1993	22:00:00	4.820	0.530
357	12/11/1984	11:00:00	4.814	0.528
358	3/5/1981	18:00:00	4.775	0.518
359	12/11/1984	10:00:00	4.769	0.517
360	12/27/1984	4:00:00	4.716	0.504
361	2/1/1996	3:00:00	4.712	0.503
362	11/24/1984	22:00:00	4.711	0.503
363	3/12/1995	0:00:00	4.698	0.499
364	2/21/2005	7:00:00	4.672	0.493
365	8/17/1977	1:00:00	4.667	0.492
366	1/31/1996	21:00:00	4.645	0.486
367	1/14/1990	5:00:00	4.639	0.485
368	2/7/1978	18:00:00	4.636	0.484
369	12/18/1984	19:00:00	4.612	0.478
370	10/31/1987	18:00:00	4.588	0.473
371	1/5/1992	16:00:00	4.566	0.467
372	12/19/1978	7:00:00	4.563	0.466
373	12/7/1992	15:00:00	4.557	0.465
374	3/26/1991	3:00:00	4.551	0.464
375	2/28/2006	2:00:00	4.530	0.458
376	1/27/2008	3:00:00	4.505	0.452
377	1/26/1997	3:00:00	4.494	0.450
378	1/14/1978	19:00:00	4.475	0.445
379	1/11/2001	7:00:00	4.446	0.438
380	1/6/1993	14:00:00	4.432	0.435
381	2/5/1976	17:00:00	4.424	0.433
382	2/20/1993	7:00:00	4.412	0.430
383	2/2/1998	16:00:00	4.396	0.426
384	11/21/2004	8:00:00	4.396	0.426
385	12/18/1984	17:00:00	4.392	0.425
386	1/10/1995	21:00:00	4.388	0.424
387	1/18/1979	8:00:00	4.324	0.409
388	1/5/1992	15:00:00	4.301	0.404
389	3/2/1992	10:00:00	4.262	0.394
390	3/1/1981	5:00:00	4.242	0.390
391	10/27/2004	15:00:00	4.234	0.388
392	1/7/2008	3:00:00	4.229	0.387
393	5/2/1980	0:00:00	4.223	0.385
394	11/29/1985	15:00:00	4.205	0.381
395	2/8/1976	17:00:00	4.201	0.380
396	3/1/1991	11:00:00	4.177	0.374
397	9/3/1976	17:00:00	4.142	0.366

398	2/12/2005	11:00:00	4.583	0.4713
399	2/5/1976	3:00:00	4.523	0.4567
400	1/7/2008	5:00:00	4.515	0.4548
401	3/1/1991	6:00:00	4.508	0.4531
402	2/15/1986	9:00:00	4.469	0.4437
403	3/1/1991	5:00:00	4.469	0.4437
404	1/7/2005	14:00:00	4.430	0.4343
405	12/17/1987	7:00:00	4.368	0.4195
406	9/25/1986	7:00:00	4.362	0.4181
407	12/11/1984	8:00:00	4.286	0.4001
408	3/6/1980	8:00:00	4.282	0.3991
409	1/27/1983	9:00:00	4.269	0.3960
410	3/8/1975	13:00:00	4.268	0.3958
411	11/25/1985	10:00:00	4.248	0.3911
412	10/19/2004	19:00:00	4.240	0.3892
413	8/17/1977	4:00:00	4.223	0.3852
414	2/28/2006	8:00:00	4.213	0.3829
415	3/1/1991	2:00:00	4.171	0.3731
416	1/6/1979	4:00:00	4.164	0.3715
417	2/2/1983	15:00:00	4.163	0.3712
418	11/25/1985	9:00:00	4.147	0.3675
419	10/20/1979	16:00:00	4.139	0.3657
420	3/6/1975	12:00:00	4.118	0.3608
421	4/29/1980	1:00:00	4.104	0.3576
422	4/20/1983	10:00:00	4.103	0.3573
423	2/7/1998	15:00:00	4.100	0.3566
424	2/13/1998	16:00:00	4.067	0.3490
425	1/10/1980	12:00:00	4.064	0.3484
426	12/4/1974	13:00:00	4.058	0.3470
427	12/30/1981	15:00:00	4.049	0.3449
428	3/2/1983	22:00:00	4.049	0.3449
429	3/3/1983	5:00:00	4.044	0.3438
430	3/3/1983	9:00:00	4.023	0.3390
431	3/5/1995	15:00:00	4.014	0.3369
432	2/28/1983	2:00:00	4.012	0.3365
433	1/16/1993	12:00:00	3.997	0.3330
434	1/16/1993	13:00:00	3.985	0.3303
435	3/3/1983	3:00:00	3.969	0.3267
436	1/11/2005	6:00:00	3.964	0.3256
437	1/11/2005	7:00:00	3.943	0.3208
438	11/1/1974	23:00:00	3.897	0.3105
439	2/12/2005	7:00:00	3.893	0.3096
440	1/10/2005	1:00:00	3.887	0.3082
441	10/19/2004	14:00:00	3.871	0.3046
442	3/12/1986	14:00:00	3.832	0.2960
443	1/7/1993	22:00:00	3.825	0.2944
444	12/25/2003	20:00:00	3.825	0.2944
445	3/12/1986	13:00:00	3.824	0.2942
446	1/9/2005	9:00:00	3.805	0.2900
447	1/13/1993	23:00:00	3.802	0.2893
448	1/12/1995	14:00:00	3.797	0.2882

398	2/12/2005	11:00:00	4.124	0.362
399	2/5/1976	3:00:00	4.069	0.350
400	1/7/2008	5:00:00	4.062	0.348
401	3/1/1991	6:00:00	4.056	0.347
402	2/15/1986	9:00:00	4.021	0.339
403	3/1/1991	5:00:00	4.021	0.339
404	1/7/2005	14:00:00	3.986	0.331
405	12/17/1987	7:00:00	3.930	0.318
406	9/25/1986	7:00:00	3.925	0.317
407	12/11/1984	8:00:00	3.856	0.301
408	3/6/1980	8:00:00	3.852	0.300
409	1/27/1983	9:00:00	3.841	0.298
410	3/8/1975	13:00:00	3.840	0.298
411	11/25/1985	10:00:00	3.822	0.294
412	10/19/2004	19:00:00	3.815	0.292
413	8/17/1977	4:00:00	3.799	0.289
414	2/28/2006	8:00:00	3.790	0.287
415	3/1/1991	2:00:00	3.753	0.279
416	1/6/1979	4:00:00	3.747	0.277
417	2/2/1983	15:00:00	3.746	0.277
418	11/25/1985	9:00:00	3.731	0.274
419	10/20/1979	16:00:00	3.724	0.272
420	3/6/1975	12:00:00	3.705	0.268
421	4/29/1980	1:00:00	3.692	0.265
422	4/20/1983	10:00:00	3.692	0.265
423	2/7/1998	15:00:00	3.689	0.265
424	2/13/1998	16:00:00	3.659	0.258
425	1/10/1980	12:00:00	3.657	0.258
426	12/4/1974	13:00:00	3.651	0.256
427	12/30/1981	15:00:00	3.643	0.255
428	3/2/1983	22:00:00	3.643	0.255
429	3/3/1983	5:00:00	3.638	0.254
430	3/3/1983	9:00:00	3.619	0.250
431	3/5/1995	15:00:00	3.612	0.248
432	2/28/1983	2:00:00	3.609	0.247
433	1/16/1993	12:00:00	3.596	0.245
434	1/16/1993	13:00:00	3.585	0.242
435	3/3/1983	3:00:00	3.571	0.239
436	1/11/2005	6:00:00	3.567	0.239
437	1/11/2005	7:00:00	3.547	0.234
438	11/1/1974	23:00:00	3.506	0.226
439	2/12/2005	7:00:00	3.503	0.225
440	1/10/2005	1:00:00	3.497	0.224
441	10/19/2004	14:00:00	3.483	0.221
442	3/12/1986	14:00:00	3.448	0.214
443	3/12/1986	13:00:00	3.441	0.212
444	1/7/1993	22:00:00	3.441	0.212
445	12/25/2003	20:00:00	3.441	0.212
446	1/9/2005	9:00:00	3.423	0.209
447	1/13/1993	23:00:00	3.421	0.208
448	1/12/1995	14:00:00	3.417	0.207

449	3/6/1994	21:00:00	3.785	0.2856
450	1/7/1993	20:00:00	3.784	0.2854
451	1/17/1993	5:00:00	3.771	0.2825
452	1/15/1993	13:00:00	3.759	0.2799
453	3/26/1975	4:00:00	3.755	0.2790
454	3/16/1986	23:00:00	3.754	0.2788
455	12/27/1984	3:00:00	3.736	0.2748
456	3/25/1994	0:00:00	3.735	0.2746
457	2/22/2005	21:00:00	3.719	0.2711
458	1/7/1993	5:00:00	3.713	0.2698
459	1/7/1993	6:00:00	3.708	0.2687
460	2/22/2005	20:00:00	3.702	0.2674
461	12/29/2004	3:00:00	3.687	0.2642
462	3/12/1986	12:00:00	3.682	0.2631
463	10/20/1979	15:00:00	3.643	0.2547
464	1/7/1993	2:00:00	3.639	0.2539
465	11/25/1985	5:00:00	3.622	0.2502
466	1/14/1993	1:00:00	3.619	0.2496
467	11/11/1985	13:00:00	3.610	0.2477
468	1/6/1993	23:00:00	3.610	0.2477
469	1/5/1992	20:00:00	3.599	0.2453
470	1/25/1995	21:00:00	3.587	0.2428
471	1/13/1993	1:00:00	3.578	0.2408
472	3/20/1981	5:00:00	3.573	0.2398
473	3/2/1983	2:00:00	3.572	0.2396
474	3/5/2005	2:00:00	3.571	0.2394
475	1/26/1997	9:00:00	3.556	0.2362
476	1/5/1992	19:00:00	3.547	0.2343
477	11/24/1984	23:00:00	3.542	0.2332
478	1/7/1993	11:00:00	3.527	0.2301
479	2/1/1996	5:00:00	3.520	0.2286
480	12/7/1992	20:00:00	3.515	0.2276
481	4/26/1994	18:00:00	3.514	0.2274
482	1/5/1992	18:00:00	3.481	0.2205
483	1/25/1995	12:00:00	3.469	0.2180
484	1/26/1997	8:00:00	3.462	0.2166
485	9/25/1986	5:00:00	3.432	0.2104
486	1/5/1992	17:00:00	3.408	0.2055
487	3/28/1979	10:00:00	3.406	0.2050
488	3/2/1983	5:00:00	3.400	0.2038
489	2/6/1976	2:00:00	3.388	0.2014
490	2/21/2005	6:00:00	3.376	0.1989
491	1/12/1993	20:00:00	3.371	0.1979
492	1/6/1993	16:00:00	3.344	0.1925
493	8/17/1977	2:00:00	3.315	0.1867
494	12/7/1992	11:00:00	3.311	0.1859
495	11/4/1987	22:00:00	3.306	0.1849
496	3/13/1996	2:00:00	3.304	0.1845
497	2/7/1998	18:00:00	3.279	0.1795
498	1/10/1995	23:00:00	3.276	0.1789
499	3/4/2005	23:00:00	3.272	0.1781

449	3/6/1994	21:00:00	3.405	0.205
450	1/7/1993	20:00:00	3.404	0.205
451	1/17/1993	5:00:00	3.393	0.202
452	1/15/1993	13:00:00	3.382	0.200
453	3/26/1975	4:00:00	3.379	0.200
454	3/16/1986	23:00:00	3.378	0.199
455	12/27/1984	3:00:00	3.361	0.196
456	3/25/1994	0:00:00	3.361	0.196
457	2/22/2005	21:00:00	3.346	0.193
458	1/7/1993	5:00:00	3.340	0.192
459	1/7/1993	6:00:00	3.336	0.191
460	2/22/2005	20:00:00	3.331	0.190
461	12/29/2004	3:00:00	3.317	0.187
462	3/12/1986	12:00:00	3.312	0.186
463	10/20/1979	15:00:00	3.277	0.179
464	1/7/1993	2:00:00	3.274	0.179
465	11/25/1985	5:00:00	3.259	0.176
466	1/14/1993	1:00:00	3.256	0.175
467	11/11/1985	13:00:00	3.248	0.173
468	1/6/1993	23:00:00	3.248	0.173
469	1/5/1992	20:00:00	3.238	0.171
470	1/25/1995	21:00:00	3.227	0.169
471	1/13/1993	1:00:00	3.219	0.168
472	3/20/1981	5:00:00	3.214	0.167
473	3/2/1983	2:00:00	3.213	0.167
474	3/5/2005	2:00:00	3.213	0.167
475	1/26/1997	9:00:00	3.200	0.164
476	1/5/1992	19:00:00	3.191	0.162
477	11/24/1984	23:00:00	3.187	0.162
478	1/7/1993	11:00:00	3.174	0.159
479	2/1/1996	5:00:00	3.167	0.158
480	12/7/1992	20:00:00	3.162	0.157
481	4/26/1994	18:00:00	3.161	0.157
482	1/5/1992	18:00:00	3.132	0.151
483	1/25/1995	12:00:00	3.121	0.149
484	1/26/1997	8:00:00	3.115	0.148
485	9/25/1986	5:00:00	3.087	0.143
486	1/5/1992	17:00:00	3.066	0.139
487	3/28/1979	10:00:00	3.064	0.138
488	3/2/1983	5:00:00	3.059	0.137
489	2/6/1976	2:00:00	3.048	0.135
490	2/21/2005	6:00:00	3.038	0.133
491	1/12/1993	20:00:00	3.033	0.133
492	1/6/1993	16:00:00	3.008	0.128
493	8/17/1977	2:00:00	2.983	0.123
494	12/7/1992	11:00:00	2.979	0.123
495	11/4/1987	22:00:00	2.975	0.122
496	3/13/1996	2:00:00	2.973	0.122
497	2/7/1998	18:00:00	2.951	0.118
498	1/10/1995	23:00:00	2.947	0.117
499	3/4/2005	23:00:00	2.944	0.117

500	1/31/1996	23:00:00	3.262	0.1762
501	2/27/1983	7:00:00	3.239	0.1716
502	12/10/1984	20:00:00	3.221	0.1681
503	2/18/2005	6:00:00	3.219	0.1677
504	3/28/1979	20:00:00	3.197	0.1635
505	12/4/1974	10:00:00	3.196	0.1633
506	12/30/1981	14:00:00	3.179	0.1600
507	1/12/1993	23:00:00	3.155	0.1554
508	2/17/1997	21:00:00	3.146	0.1537
509	1/12/2001	13:00:00	3.144	0.1533
510	12/16/1987	21:00:00	3.127	0.1501
511	4/20/1988	12:00:00	3.109	0.1467
512	12/28/1984	0:00:00	3.104	0.1457
513	12/29/1991	18:00:00	3.045	0.1348
514	12/28/1977	9:00:00	3.044	0.1346
515	3/25/1998	17:00:00	3.043	0.1344
516	3/26/1998	17:00:00	3.043	0.1344
517	3/30/1998	17:00:00	3.043	0.1344
518	2/22/2008	8:00:00	3.029	0.1318
519	3/2/1983	21:00:00	3.027	0.1315
520	1/7/2008	6:00:00	3.023	0.1307
521	12/27/1984	20:00:00	3.013	0.1289
522	2/14/2008	17:00:00	3.013	0.1289
523	2/21/2005	5:00:00	3.011	0.1285
524	2/19/2007	17:00:00	2.986	0.1240
525	1/8/1974	4:00:00	2.978	0.1226
526	11/30/2002	17:00:00	2.973	0.1217
527	11/24/1984	18:00:00	2.972	0.1215
528	12/16/1987	19:00:00	2.957	0.1188
529	1/8/1974	5:00:00	2.955	0.1185
530	1/9/1980	17:00:00	2.948	0.1172
531	2/14/1978	0:00:00	2.938	0.1154
532	1/7/1974	19:00:00	2.928	0.1137
533	2/13/1978	23:00:00	2.928	0.1137
534	12/5/1997	17:00:00	2.926	0.1133
535	11/11/1985	12:00:00	2.917	0.1117
536	3/5/1978	12:00:00	2.892	0.1074
537	3/5/1978	6:00:00	2.890	0.1070
538	3/1/1991	12:00:00	2.880	0.1053
539	1/7/1974	16:00:00	2.874	0.1043
540	2/11/1978	13:00:00	2.865	0.1027
541	12/19/1987	18:00:00	2.865	0.1027
542	12/7/2007	9:00:00	2.865	0.1027
543	1/7/1974	15:00:00	2.855	0.1010
544	11/25/2001	17:00:00	2.853	0.1007
545	2/28/1978	19:00:00	2.851	0.1003
546	2/15/1986	11:00:00	2.846	0.0995
547	2/12/2005	2:00:00	2.846	0.0995
548	12/5/2004	16:00:00	2.842	0.0988
549	10/20/2004	17:00:00	2.831	0.0969
550	12/16/1987	18:00:00	2.820	0.0951

500	1/31/1996	23:00:00	2.935	0.115
501	2/27/1983	7:00:00	2.915	0.111
502	12/10/1984	20:00:00	2.898	0.108
503	2/18/2005	6:00:00	2.897	0.108
504	3/28/1979	20:00:00	2.876	0.105
505	12/4/1974	10:00:00	2.875	0.104
506	12/30/1981	14:00:00	2.860	0.102
507	1/12/1993	23:00:00	2.838	0.098
508	2/17/1997	21:00:00	2.831	0.097
509	1/12/2001	13:00:00	2.829	0.097
510	12/16/1987	21:00:00	2.813	0.094
511	4/20/1988	12:00:00	2.797	0.091
512	12/28/1984	0:00:00	2.793	0.091
513	12/28/1977	9:00:00	2.739	0.082
514	12/29/1991	18:00:00	2.739	0.082
515	3/25/1998	17:00:00	2.738	0.082
516	3/26/1998	17:00:00	2.738	0.082
517	3/30/1998	17:00:00	2.738	0.082
518	2/22/2008	8:00:00	2.726	0.080
519	3/2/1983	21:00:00	2.724	0.079
520	1/7/2008	6:00:00	2.720	0.079
521	12/27/1984	20:00:00	2.711	0.077
522	2/14/2008	17:00:00	2.711	0.077
523	2/21/2005	5:00:00	2.709	0.077
524	2/19/2007	17:00:00	2.687	0.073
525	1/8/1974	4:00:00	2.680	0.072
526	11/24/1984	18:00:00	2.674	0.071
527	11/30/2002	17:00:00	2.674	0.071
528	12/16/1987	19:00:00	2.661	0.069
529	1/8/1974	5:00:00	2.659	0.069
530	1/9/1980	17:00:00	2.653	0.068
531	2/14/1978	0:00:00	2.644	0.067
532	1/7/1974	19:00:00	2.634	0.065
533	2/13/1978	23:00:00	2.634	0.065
534	12/5/1997	17:00:00	2.633	0.065
535	11/11/1985	12:00:00	2.625	0.064
536	3/5/1978	12:00:00	2.602	0.061
537	3/5/1978	6:00:00	2.600	0.060
538	3/1/1991	12:00:00	2.592	0.059
539	1/7/1974	16:00:00	2.586	0.058
540	2/11/1978	13:00:00	2.578	0.057
541	12/19/1987	18:00:00	2.577	0.057
542	12/7/2007	9:00:00	2.577	0.057
543	1/7/1974	15:00:00	2.569	0.056
544	11/25/2001	17:00:00	2.567	0.055
545	2/28/1978	19:00:00	2.565	0.055
546	2/15/1986	11:00:00	2.560	0.054
547	2/12/2005	2:00:00	2.560	0.054
548	12/5/2004	16:00:00	2.557	0.054
549	10/20/2004	17:00:00	2.548	0.053
550	12/16/1987	18:00:00	2.537	0.051

551	2/12/2005	14:00:00	2.810	0.0934
552	2/28/1991	16:00:00	2.802	0.0921
553	3/10/1975	18:00:00	2.776	0.0878
554	3/10/1975	17:00:00	2.757	0.0846
555	2/28/2006	10:00:00	2.746	0.0829
556	3/16/1986	0:00:00	2.739	0.0817
557	3/10/1975	16:00:00	2.736	0.0812
558	2/28/2006	1:00:00	2.725	0.0795
559	1/17/1978	2:00:00	2.717	0.0782
560	3/4/1978	22:00:00	2.717	0.0782
561	2/16/1998	16:00:00	2.713	0.0776
562	3/10/1975	15:00:00	2.712	0.0774
563	1/8/1974	7:00:00	2.706	0.0765
564	3/13/1996	10:00:00	2.706	0.0765
565	2/19/1993	18:00:00	2.704	0.0761
566	2/20/1980	6:00:00	2.697	0.0750
567	4/12/1999	4:00:00	2.696	0.0749
568	12/6/1986	18:00:00	2.695	0.0747
569	1/9/2005	8:00:00	2.695	0.0747
570	3/4/1978	21:00:00	2.680	0.0724
571	3/10/1975	14:00:00	2.665	0.0700
572	1/17/1978	1:00:00	2.660	0.0693
573	2/19/1980	17:00:00	2.657	0.0688
574	3/1/1991	4:00:00	2.652	0.0680
575	11/24/1978	12:00:00	2.647	0.0673
576	12/29/1991	17:00:00	2.639	0.0661
577	1/15/1978	5:00:00	2.638	0.0659
578	3/1/1991	3:00:00	2.634	0.0653
579	2/2/1983	16:00:00	2.628	0.0644
580	1/17/1978	0:00:00	2.621	0.0633
581	1/5/1974	11:00:00	2.601	0.0604
582	12/16/1987	17:00:00	2.598	0.0599
583	3/1/1976	20:00:00	2.594	0.0593
584	4/2/1974	5:00:00	2.592	0.0590
585	3/6/1980	6:00:00	2.582	0.0576
586	3/1/1981	13:00:00	2.580	0.0573
587	2/15/1986	8:00:00	2.555	0.0536
588	2/19/1993	21:00:00	2.544	0.0521
589	12/26/1977	16:00:00	2.540	0.0515
590	1/5/1974	10:00:00	2.538	0.0512
591	2/27/1991	22:00:00	2.527	0.0497
592	2/11/1978	15:00:00	2.521	0.0488
593	3/25/1994	2:00:00	2.517	0.0483
594	3/11/1975	0:00:00	2.511	0.0475
595	3/5/1981	19:00:00	2.510	0.0473
596	1/18/1979	19:00:00	2.483	0.0436
597	12/26/1977	14:00:00	2.477	0.0428
598	1/6/1992	0:00:00	2.471	0.0420
599	3/10/1975	22:00:00	2.469	0.0418
600	12/16/1987	15:00:00	2.469	0.0418
601	12/19/1987	17:00:00	2.465	0.0412

551	2/12/2005	14:00:00	2.528	0.050
552	2/28/1991	16:00:00	2.521	0.049
553	3/10/1975	18:00:00	2.497	0.046
554	3/10/1975	17:00:00	2.480	0.043
555	2/28/2006	10:00:00	2.470	0.042
556	3/16/1986	0:00:00	2.465	0.041
557	3/10/1975	16:00:00	2.462	0.041
558	2/28/2006	1:00:00	2.451	0.039
559	1/17/1978	2:00:00	2.445	0.039
560	3/4/1978	22:00:00	2.445	0.039
561	2/16/1998	16:00:00	2.441	0.038
562	3/10/1975	15:00:00	2.440	0.038
563	1/8/1974	7:00:00	2.435	0.037
564	3/13/1996	10:00:00	2.435	0.037
565	2/19/1993	18:00:00	2.433	0.037
566	2/20/1980	6:00:00	2.427	0.036
567	4/12/1999	4:00:00	2.426	0.036
568	12/6/1986	18:00:00	2.425	0.036
569	1/9/2005	8:00:00	2.425	0.036
570	3/4/1978	21:00:00	2.412	0.034
571	3/10/1975	14:00:00	2.398	0.033
572	1/17/1978	1:00:00	2.394	0.032
573	2/19/1980	17:00:00	2.391	0.032
574	3/1/1991	4:00:00	2.386	0.031
575	11/24/1978	12:00:00	2.382	0.031
576	12/29/1991	17:00:00	2.375	0.030
577	1/15/1978	5:00:00	2.374	0.030
578	3/1/1991	3:00:00	2.370	0.029
579	2/2/1983	16:00:00	2.365	0.029
580	1/17/1978	0:00:00	2.358	0.028
581	1/5/1974	11:00:00	2.340	0.026
582	12/16/1987	17:00:00	2.337	0.025
583	3/1/1976	20:00:00	2.334	0.025
584	4/2/1974	5:00:00	2.332	0.025
585	3/6/1980	6:00:00	2.323	0.024
586	3/1/1981	13:00:00	2.321	0.024
587	2/15/1986	8:00:00	2.299	0.021
588	2/19/1993	21:00:00	2.289	0.020
589	12/26/1977	16:00:00	2.286	0.020
590	1/5/1974	10:00:00	2.284	0.019
591	2/27/1991	22:00:00	2.274	0.018
592	2/11/1978	15:00:00	2.269	0.018
593	3/25/1994	2:00:00	2.265	0.018
594	3/11/1975	0:00:00	2.259	0.017
595	3/5/1981	19:00:00	2.258	0.017
596	1/18/1979	19:00:00	2.234	0.014
597	12/26/1977	14:00:00	2.228	0.014
598	1/6/1992	0:00:00	2.223	0.013
599	3/10/1975	22:00:00	2.221	0.013
600	12/16/1987	15:00:00	2.221	0.013
601	12/19/1987	17:00:00	2.218	0.013

602	2/15/1986	7:00:00	2.463	0.0410
603	2/7/1978	20:00:00	2.453	0.0396
604	2/7/1978	21:00:00	2.443	0.0383
605	3/10/1975	20:00:00	2.441	0.0381
606	2/21/1980	3:00:00	2.440	0.0379
607	1/29/1980	21:00:00	2.437	0.0376
608	11/24/1978	15:00:00	2.434	0.0372
609	2/12/2003	16:00:00	2.425	0.0360
610	2/18/1980	2:00:00	2.413	0.0345
611	1/7/2005	15:00:00	2.411	0.0342
612	1/1/1977	15:00:00	2.391	0.0318
613	3/2/1978	11:00:00	2.391	0.0318
614	12/26/1977	12:00:00	2.387	0.0313
615	2/27/1983	20:00:00	2.380	0.0304
616	1/19/1980	4:00:00	2.379	0.0303
617	3/1/1981	8:00:00	2.378	0.0302
618	2/18/1980	1:00:00	2.367	0.0289
619	3/4/1978	20:00:00	2.348	0.0266
620	2/20/1980	0:00:00	2.341	0.0258
621	1/5/1974	3:00:00	2.338	0.0255
622	3/3/1983	7:00:00	2.337	0.0253
623	1/31/1979	15:00:00	2.336	0.0252
624	1/11/2001	10:00:00	2.335	0.0251
625	2/7/1998	19:00:00	2.330	0.0245
626	11/25/1985	8:00:00	2.329	0.0244
627	3/2/1992	16:00:00	2.325	0.0240
628	3/24/1983	22:00:00	2.321	0.0235
629	1/18/1993	7:00:00	2.321	0.0235
630	2/12/2005	3:00:00	2.316	0.0230
631	3/1/1981	7:00:00	2.312	0.0225
632	1/11/1980	10:00:00	2.311	0.0224
633	2/7/1998	14:00:00	2.310	0.0223
634	1/15/1978	0:00:00	2.304	0.0216
635	3/25/1994	1:00:00	2.301	0.0213
636	4/18/1995	15:00:00	2.301	0.0213
637	10/29/1974	6:00:00	2.292	0.0204
638	1/11/1980	11:00:00	2.290	0.0201
639	1/11/1980	8:00:00	2.289	0.0200
640	3/3/1983	4:00:00	2.282	0.0193
641	3/2/1983	6:00:00	2.276	0.0187
642	11/12/2003	10:00:00	2.272	0.0182
643	12/19/1978	0:00:00	2.271	0.0181
644	2/22/2005	19:00:00	2.268	0.0178
645	1/18/1979	9:00:00	2.265	0.0175
646	2/8/1976	23:00:00	2.262	0.0172
647	3/1/1981	6:00:00	2.261	0.0171
648	3/8/1974	11:00:00	2.253	0.0163
649	2/28/1991	17:00:00	2.253	0.0163
650	3/11/1995	6:00:00	2.246	0.0156
651	10/19/2004	15:00:00	2.244	0.0154
652	1/12/1995	9:00:00	2.243	0.0153

602	2/15/1986	7:00:00	2.216	0.013
603	2/7/1978	20:00:00	2.207	0.012
604	2/7/1978	21:00:00	2.198	0.011
605	3/10/1975	20:00:00	2.196	0.011
606	2/21/1980	3:00:00	2.196	0.011
607	1/29/1980	21:00:00	2.193	0.011
608	11/24/1978	15:00:00	2.190	0.010
609	2/12/2003	16:00:00	2.182	0.010
610	2/18/1980	2:00:00	2.171	0.009
611	1/7/2005	15:00:00	2.169	0.009
612	3/2/1978	11:00:00	2.152	0.007
613	1/1/1977	15:00:00	2.151	0.007
614	12/26/1977	12:00:00	2.147	0.007
615	1/19/1980	4:00:00	2.141	0.006
616	2/27/1983	20:00:00	2.141	0.006
617	3/1/1981	8:00:00	2.139	0.006
618	2/18/1980	1:00:00	2.130	0.006
619	3/4/1978	20:00:00	2.113	0.004
620	2/20/1980	0:00:00	2.106	0.004
621	1/5/1974	3:00:00	2.104	0.004
622	3/3/1983	7:00:00	2.103	0.004
623	1/31/1979	15:00:00	2.102	0.004
624	1/11/2001	10:00:00	2.100	0.004
625	2/7/1998	19:00:00	2.096	0.003
626	11/25/1985	8:00:00	2.095	0.003
627	3/2/1992	16:00:00	2.092	0.003
628	3/24/1983	22:00:00	2.088	0.003
629	1/18/1993	7:00:00	2.088	0.003
630	2/12/2005	3:00:00	2.083	0.003
631	3/1/1981	7:00:00	2.080	0.002
632	1/11/1980	10:00:00	2.079	0.002
633	2/7/1998	14:00:00	2.078	0.002
634	1/15/1978	0:00:00	2.073	0.002
635	3/25/1994	1:00:00	2.071	0.002
636	4/18/1995	15:00:00	2.070	0.002
637	10/29/1974	6:00:00	2.062	0.002
638	1/11/1980	8:00:00	2.060	0.001
639	1/11/1980	11:00:00	2.060	0.001
640	3/3/1983	4:00:00	2.054	0.001
641	3/2/1983	6:00:00	2.048	0.001
642	11/12/2003	10:00:00	2.044	0.001
643	12/19/1978	0:00:00	2.043	0.001
644	2/22/2005	19:00:00	2.041	0.001
645	1/18/1979	9:00:00	2.038	0.001
646	2/8/1976	23:00:00	2.035	0.000
647	3/1/1981	6:00:00	2.034	0.000
648	3/8/1974	11:00:00	2.027	0.000
649	2/28/1991	17:00:00	2.027	0.000
650	3/11/1995	6:00:00	2.021	0.000
651	10/19/2004	15:00:00	2.019	0.000
652	1/12/1995	9:00:00	2.018	0.000

653	1/18/1993	10:00:00	2.237	0.0147
654	1/11/2001	6:00:00	2.221	0.0132
655	1/16/1993	14:00:00	2.216	0.0127
656	2/9/1976	0:00:00	2.211	0.0123
657	3/2/1978	6:00:00	2.204	0.0116
658	11/23/1973	4:00:00	2.201	0.0114
659	1/5/2008	12:00:00	2.201	0.0114
660	3/8/1974	10:00:00	2.195	0.0108
661	2/8/1976	20:00:00	2.194	0.0108
662	2/13/1978	22:00:00	2.193	0.0107
663	3/4/1983	5:00:00	2.193	0.0107
664	3/8/1975	14:00:00	2.192	0.0106
665	12/26/1977	10:00:00	2.191	0.0105
666	1/8/1974	1:00:00	2.179	0.0095
667	3/1/1981	12:00:00	2.172	0.0089
668	1/15/1993	20:00:00	2.171	0.0088
669	1/11/2001	9:00:00	2.171	0.0088
670	3/5/1995	14:00:00	2.168	0.0085
671	1/15/1993	17:00:00	2.167	0.0085
672	1/15/1993	15:00:00	2.156	0.0076
673	2/27/1983	17:00:00	2.154	0.0074
674	1/6/1978	15:00:00	2.151	0.0072
675	2/8/1976	18:00:00	2.147	0.0069
676	1/16/1993	3:00:00	2.147	0.0069
677	12/29/2004	5:00:00	2.147	0.0069
678	1/10/2005	0:00:00	2.140	0.0064
679	1/15/1993	21:00:00	2.137	0.0061
680	1/11/1980	2:00:00	2.125	0.0053
681	1/15/1993	18:00:00	2.122	0.0051
682	3/8/1974	9:00:00	2.121	0.0050
683	2/15/1992	14:00:00	2.111	0.0043
684	1/14/1978	21:00:00	2.100	0.0036
685	11/2/1974	0:00:00	2.098	0.0035
686	2/2/1983	14:00:00	2.089	0.0030
687	1/9/2005	0:00:00	2.080	0.0025
688	1/29/1980	12:00:00	2.077	0.0023
689	1/7/1993	23:00:00	2.074	0.0021
690	1/7/1993	17:00:00	2.064	0.0016
691	1/7/1992	21:00:00	2.063	0.0016
692	1/7/1993	21:00:00	2.063	0.0016
693	4/21/1988	20:00:00	2.062	0.0015
694	3/26/1991	4:00:00	2.058	0.0014
695	1/14/1993	5:00:00	2.046	0.0009
696	11/24/1978	9:00:00	2.035	0.0005
697	2/12/1978	23:00:00	2.028	0.0003
698	1/14/1993	4:00:00	2.027	0.0002
699	10/10/1986	2:00:00	2.025	0.0002
700	2/18/2005	7:00:00	2.024	0.0002
701	3/1/1978	14:00:00	2.013	0.0000

653	1/18/1993	10:00:00	2.013	0.000
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ΣW_{POST} : 646

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.250	(1/4)
3m/2	0.375	

SUMMARY

(a) ΣW_{PRE} :	768
(b) ΣW_{POST} :	646
(c) S_{RUSLE} :	1.121
(d) S_{NHD} :	N/A

E_p :	0.841	[(b)/(a)]
S_p :	1.121	[(c)]

E_p / S_p :	0.8
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 4A - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		2.013		cfs
Type of flow:		10% of Q ₂		
Notes:				
- Lower limit = upper limit = average flow = Q _{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q _{pre} (cfs)	W _{PRE}
1	1/4/1978	21:00:00	42.097	27.574
2	2/20/1980	19:00:00	38.585	24.768
3	10/22/1976	17:00:00	34.075	21.210
4	10/22/1976	16:00:00	28.416	16.833
5	9/10/1976	10:00:00	27.637	16.239
6	10/31/1987	19:00:00	26.610	15.460
7	2/7/1998	17:00:00	26.536	15.404
8	2/6/1992	20:00:00	25.515	14.634
9	1/9/2005	21:00:00	25.404	14.551
10	1/29/1980	7:00:00	24.228	13.6706
11	2/19/1993	16:00:00	24.006	13.5052
12	2/2/1998	17:00:00	23.365	13.0289
13	10/20/2004	12:00:00	22.348	12.2776
14	2/13/1998	17:00:00	21.924	11.9660
15	10/27/2004	5:00:00	21.505	11.6591
16	10/18/2004	13:00:00	21.478	11.6393
17	3/6/1975	11:00:00	21.342	11.5399
18	3/1/1983	16:00:00	20.200	10.7097
19	1/31/1979	14:00:00	20.127	10.6569
20	1/9/2005	20:00:00	19.993	10.5601
21	3/2/1983	18:00:00	18.407	9.4232
22	2/15/1992	15:00:00	18.020	9.1485
23	2/21/2005	14:00:00	17.893	9.0585
24	10/10/1986	0:00:00	17.720	8.9362
25	8/17/1977	3:00:00	17.280	8.6263
26	4/18/1995	12:00:00	16.977	8.4137
27	12/4/1974	12:00:00	16.958	8.4004
28	3/3/1983	1:00:00	16.609	8.1565
29	1/18/1993	6:00:00	16.538	8.1070
30	12/28/1977	8:00:00	16.383	7.9991
31	1/13/1993	22:00:00	16.303	7.9435
32	2/20/1980	20:00:00	16.171	7.8519
33	3/4/1978	18:00:00	15.974	7.7154
34	2/18/1980	5:00:00	15.899	7.6636
35	4/23/1980	4:00:00	15.876	7.6477
36	2/15/1986	4:00:00	15.801	7.5959
37	1/31/1979	16:00:00	15.748	7.5593
38	1/31/1979	13:00:00	15.576	7.4408
39	2/16/1980	20:00:00	15.572	7.4381
40	2/12/2003	17:00:00	15.323	7.2670

Work Calculations, Post-Development Conditions				
Low flow Threshold:		2.013		cfs
Type of flow:		10% of Q ₂		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q _{post} (cfs)	W _{POST}
1	1/4/1978	21:00:00	37.876	24.205
2	2/20/1980	19:00:00	34.716	21.713
3	10/22/1976	17:00:00	30.658	18.554
4	10/22/1976	16:00:00	25.566	14.673
5	9/10/1976	10:00:00	24.866	14.147
6	10/31/1987	19:00:00	23.942	13.458
7	2/7/1998	17:00:00	23.875	13.408
8	2/6/1992	20:00:00	22.956	12.726
9	1/9/2005	21:00:00	22.857	12.653
10	1/29/1980	7:00:00	21.799	11.874
11	2/19/1993	16:00:00	21.599	11.728
12	2/2/1998	17:00:00	21.022	11.307
13	10/20/2004	12:00:00	20.107	10.642
14	2/13/1998	17:00:00	19.726	10.368
15	10/27/2004	5:00:00	19.348	10.096
16	10/18/2004	13:00:00	19.324	10.078
17	3/6/1975	11:00:00	19.202	9.991
18	3/1/1983	16:00:00	18.175	9.258
19	1/31/1979	14:00:00	18.109	9.212
20	1/9/2005	20:00:00	17.988	9.126
21	3/2/1983	18:00:00	16.561	8.123
22	2/15/1992	15:00:00	16.213	7.881
23	2/21/2005	14:00:00	16.099	7.802
24	10/10/1986	0:00:00	15.943	7.694
25	8/17/1977	3:00:00	15.548	7.422
26	4/18/1995	12:00:00	15.274	7.233
27	12/4/1974	12:00:00	15.258	7.222
28	3/3/1983	1:00:00	14.944	7.008
29	1/18/1993	6:00:00	14.880	6.964
30	12/28/1977	8:00:00	14.740	6.869
31	1/13/1993	22:00:00	14.668	6.820
32	2/20/1980	20:00:00	14.549	6.739
33	3/4/1978	18:00:00	14.372	6.619
34	2/18/1980	5:00:00	14.305	6.574
35	4/23/1980	4:00:00	14.284	6.560
36	2/15/1986	4:00:00	14.216	6.514
37	1/31/1979	16:00:00	14.169	6.482
38	1/31/1979	13:00:00	14.014	6.378
39	2/16/1980	20:00:00	14.010	6.375
40	2/12/2003	17:00:00	13.787	6.225

41	1/31/1979	8:00:00	14.951	7.0126
42	3/3/1983	6:00:00	14.816	6.9205
43	2/25/2003	17:00:00	14.403	6.6402
44	1/9/1980	13:00:00	14.309	6.5766
45	2/16/1998	17:00:00	13.975	6.3516
46	5/1/1978	5:00:00	13.580	6.0869
47	3/5/2005	0:00:00	13.562	6.0749
48	10/20/2004	16:00:00	13.513	6.0422
49	10/20/2004	15:00:00	13.485	6.0235
50	10/27/2004	14:00:00	13.467	6.0115
51	10/20/2004	13:00:00	13.429	5.9862
52	2/15/1986	6:00:00	12.961	5.6758
53	1/11/2005	4:00:00	12.900	5.6355
54	11/25/1985	7:00:00	12.886	5.6263
55	10/27/2004	8:00:00	12.810	5.5762
56	12/29/2004	4:00:00	12.730	5.5236
57	2/23/2005	4:00:00	12.721	5.5177
58	2/15/1986	5:00:00	12.670	5.4841
59	10/28/1974	12:00:00	12.646	5.4684
60	3/16/1986	21:00:00	12.625	5.4546
61	12/29/2004	2:00:00	12.488	5.3648
62	1/25/1995	19:00:00	12.479	5.3589
63	10/27/2004	7:00:00	12.456	5.3439
64	10/19/2004	8:00:00	12.329	5.2609
65	2/21/2005	11:00:00	12.298	5.2407
66	3/21/1983	5:00:00	12.287	5.2335
67	4/4/2006	23:00:00	12.164	5.1534
68	3/11/1995	4:00:00	12.100	5.1118
69	11/22/1996	3:00:00	12.057	5.0839
70	11/12/2003	7:00:00	12.001	5.0476
71	2/27/1978	22:00:00	11.943	5.0100
72	10/28/1974	11:00:00	11.922	4.9964
73	1/27/2008	2:00:00	11.873	4.9647
74	12/28/1977	13:00:00	11.863	4.9583
75	10/27/2004	6:00:00	11.857	4.9544
76	12/25/2003	19:00:00	11.835	4.9402
77	1/8/1998	17:00:00	11.766	4.8956
78	2/13/1978	11:00:00	11.682	4.8415
79	2/10/1978	6:00:00	11.650	4.8209
80	2/10/1978	5:00:00	11.636	4.8119
81	3/1/1981	14:00:00	11.577	4.7740
82	2/19/1980	22:00:00	11.565	4.7663
83	3/5/1995	20:00:00	11.555	4.7599
84	1/15/1978	4:00:00	11.517	4.7355
85	4/5/2006	7:00:00	11.489	4.7176
86	12/28/2004	22:00:00	11.480	4.7118
87	2/18/1980	9:00:00	11.452	4.6939
88	10/27/2004	10:00:00	11.431	4.6804
89	1/10/1978	8:00:00	11.386	4.6516
90	3/5/1995	17:00:00	11.367	4.6395
91	12/18/1988	14:00:00	11.355	4.6318

41	1/31/1979	8:00:00	13.452	6.002
42	3/3/1983	6:00:00	13.331	5.921
43	2/25/2003	17:00:00	12.959	5.674
44	1/9/1980	13:00:00	12.874	5.618
45	2/16/1998	17:00:00	12.574	5.421
46	5/1/1978	5:00:00	12.219	5.189
47	3/5/2005	0:00:00	12.202	5.178
48	10/20/2004	16:00:00	12.158	5.149
49	10/20/2004	15:00:00	12.133	5.133
50	10/27/2004	14:00:00	12.116	5.122
51	10/20/2004	13:00:00	12.082	5.100
52	2/15/1986	6:00:00	11.661	4.828
53	1/11/2005	4:00:00	11.607	4.793
54	11/25/1985	7:00:00	11.594	4.785
55	10/27/2004	8:00:00	11.525	4.741
56	12/29/2004	4:00:00	11.454	4.695
57	2/23/2005	4:00:00	11.446	4.690
58	2/15/1986	5:00:00	11.399	4.660
59	10/28/1974	12:00:00	11.378	4.647
60	3/16/1986	21:00:00	11.359	4.634
61	12/29/2004	2:00:00	11.236	4.556
62	1/25/1995	19:00:00	11.228	4.551
63	10/27/2004	7:00:00	11.207	4.537
64	10/19/2004	8:00:00	11.093	4.465
65	2/21/2005	11:00:00	11.065	4.447
66	3/21/1983	5:00:00	11.055	4.441
67	4/4/2006	23:00:00	10.945	4.371
68	3/11/1995	4:00:00	10.887	4.334
69	11/22/1996	3:00:00	10.848	4.310
70	11/12/2003	7:00:00	10.798	4.278
71	2/27/1978	22:00:00	10.746	4.246
72	10/28/1974	11:00:00	10.727	4.234
73	1/27/2008	2:00:00	10.682	4.205
74	12/28/1977	13:00:00	10.673	4.200
75	10/27/2004	6:00:00	10.669	4.197
76	12/25/2003	19:00:00	10.648	4.184
77	1/8/1998	17:00:00	10.586	4.145
78	2/13/1978	11:00:00	10.511	4.098
79	2/10/1978	6:00:00	10.482	4.080
80	2/10/1978	5:00:00	10.470	4.072
81	3/1/1981	14:00:00	10.416	4.039
82	2/19/1980	22:00:00	10.405	4.032
83	3/5/1995	20:00:00	10.397	4.027
84	1/15/1978	4:00:00	10.362	4.005
85	4/5/2006	7:00:00	10.337	3.989
86	12/28/2004	22:00:00	10.329	3.984
87	2/18/1980	9:00:00	10.304	3.969
88	10/27/2004	10:00:00	10.285	3.957
89	1/10/1978	8:00:00	10.245	3.932
90	3/5/1995	17:00:00	10.227	3.921
91	12/18/1988	14:00:00	10.217	3.915

92	2/19/1980	16:00:00	11.346	4.6261
93	1/29/1980	20:00:00	11.320	4.6095
94	2/15/1986	3:00:00	11.317	4.6075
95	1/11/1980	13:00:00	11.294	4.5929
96	2/27/1983	19:00:00	11.287	4.5884
97	3/1/1983	17:00:00	11.235	4.5552
98	3/2/1983	19:00:00	11.234	4.5546
99	3/2/1983	17:00:00	11.229	4.5514
100	1/29/1980	18:00:00	11.219	4.5451
101	3/27/1998	17:00:00	11.218	4.5444
102	2/9/1976	1:00:00	11.186	4.5240
103	2/8/1976	22:00:00	11.149	4.5005
104	3/11/2006	1:00:00	11.130	4.4884
105	2/8/1976	21:00:00	11.127	4.4865
106	1/11/2005	5:00:00	11.113	4.4776
107	1/11/1980	7:00:00	11.112	4.4770
108	12/23/1982	1:00:00	11.084	4.4592
109	3/6/1980	5:00:00	11.053	4.4395
110	2/26/1983	15:00:00	11.043	4.4332
111	1/31/1979	12:00:00	11.007	4.4104
112	2/16/1980	19:00:00	10.999	4.4053
113	11/12/2003	6:00:00	10.986	4.3971
114	1/14/1978	20:00:00	10.826	4.2959
115	12/18/1978	18:00:00	10.750	4.2480
116	2/11/2005	16:00:00	10.738	4.2405
117	2/21/2005	13:00:00	10.702	4.2178
118	3/2/1992	15:00:00	10.675	4.2009
119	2/7/1976	4:00:00	10.579	4.1406
120	12/7/1992	17:00:00	10.551	4.1231
121	2/1/1996	2:00:00	10.523	4.1055
122	10/14/2006	0:00:00	10.479	4.0780
123	1/12/1997	17:00:00	10.477	4.0768
124	2/28/1978	20:00:00	10.374	4.0125
125	3/16/1986	11:00:00	10.315	3.9757
126	11/11/1985	11:00:00	10.268	3.9465
127	2/14/1980	17:00:00	10.248	3.9340
128	2/28/2006	0:00:00	10.241	3.9297
129	1/12/2001	12:00:00	10.218	3.9154
130	12/4/1987	22:00:00	10.181	3.8924
131	1/7/2008	1:00:00	9.987	3.7725
132	12/25/1988	1:00:00	9.981	3.7688
133	11/20/1983	12:00:00	9.960	3.7558
134	12/28/2004	19:00:00	9.900	3.7189
135	10/20/2004	14:00:00	9.872	3.7017
136	2/9/1981	2:00:00	9.864	3.6968
137	11/30/2007	23:00:00	9.831	3.6765
138	1/10/1995	20:00:00	9.821	3.6704
139	1/31/1979	6:00:00	9.759	3.6323
140	2/19/2007	13:00:00	9.718	3.6072
141	3/13/1996	9:00:00	9.708	3.6011
142	1/16/1979	2:00:00	9.702	3.5975

92	2/19/1980	16:00:00	10.208	3.909
93	1/29/1980	20:00:00	10.185	3.895
94	2/15/1986	3:00:00	10.183	3.894
95	1/11/1980	13:00:00	10.161	3.880
96	2/27/1983	19:00:00	10.155	3.876
97	3/1/1983	17:00:00	10.108	3.847
98	3/2/1983	19:00:00	10.108	3.847
99	3/2/1983	17:00:00	10.103	3.844
100	1/29/1980	18:00:00	10.094	3.839
101	3/27/1998	17:00:00	10.093	3.838
102	2/9/1976	1:00:00	10.064	3.820
103	2/8/1976	22:00:00	10.031	3.800
104	3/11/2006	1:00:00	10.014	3.789
105	2/8/1976	21:00:00	10.011	3.787
106	1/11/1980	7:00:00	9.998	3.779
107	1/11/2005	5:00:00	9.998	3.779
108	12/23/1982	1:00:00	9.972	3.763
109	3/6/1980	5:00:00	9.944	3.746
110	2/26/1983	15:00:00	9.936	3.741
111	1/31/1979	12:00:00	9.903	3.721
112	2/16/1980	19:00:00	9.896	3.716
113	11/12/2003	6:00:00	9.884	3.709
114	1/14/1978	20:00:00	9.741	3.621
115	12/18/1978	18:00:00	9.672	3.579
116	2/11/2005	16:00:00	9.661	3.572
117	2/21/2005	13:00:00	9.629	3.553
118	3/2/1992	15:00:00	9.605	3.538
119	2/7/1976	4:00:00	9.518	3.485
120	12/7/1992	17:00:00	9.493	3.470
121	2/1/1996	2:00:00	9.468	3.455
122	10/14/2006	0:00:00	9.428	3.431
123	1/12/1997	17:00:00	9.427	3.430
124	2/28/1978	20:00:00	9.334	3.374
125	3/16/1986	11:00:00	9.281	3.342
126	11/11/1985	11:00:00	9.239	3.316
127	2/14/1980	17:00:00	9.220	3.305
128	2/28/2006	0:00:00	9.214	3.301
129	1/12/2001	12:00:00	9.194	3.289
130	12/4/1987	22:00:00	9.160	3.269
131	1/7/2008	1:00:00	8.985	3.164
132	12/25/1988	1:00:00	8.980	3.161
133	11/20/1983	12:00:00	8.962	3.150
134	12/28/2004	19:00:00	8.907	3.118
135	10/20/2004	14:00:00	8.882	3.103
136	2/9/1981	2:00:00	8.875	3.098
137	11/30/2007	23:00:00	8.845	3.081
138	1/10/1995	20:00:00	8.836	3.075
139	1/31/1979	6:00:00	8.781	3.043
140	2/19/2007	13:00:00	8.743	3.020
141	3/13/1996	9:00:00	8.734	3.015
142	1/16/1979	2:00:00	8.730	3.012

143	3/5/1995	18:00:00	9.646	3.5633
144	3/6/1980	10:00:00	9.567	3.5151
145	2/27/1983	18:00:00	9.486	3.4658
146	10/27/2004	9:00:00	9.464	3.4525
147	2/14/2001	17:00:00	9.449	3.4434
148	10/10/1986	4:00:00	9.441	3.4385
149	2/8/1994	7:00:00	9.381	3.4022
150	4/15/1976	21:00:00	9.291	3.3478
151	1/17/1990	3:00:00	9.229	3.3104
152	1/6/2008	7:00:00	9.224	3.3074
153	1/18/1993	14:00:00	9.200	3.2929
154	3/18/1983	23:00:00	9.135	3.2539
155	1/9/2005	5:00:00	9.111	3.2395
156	2/5/1978	15:00:00	9.105	3.2359
157	1/4/2005	4:00:00	9.083	3.2227
158	2/23/2004	17:00:00	8.995	3.1700
159	2/14/1995	11:00:00	8.940	3.1372
160	12/25/1988	0:00:00	8.911	3.1199
161	2/21/2005	12:00:00	8.895	3.1104
162	11/11/1978	22:00:00	8.679	2.9823
163	3/5/2005	1:00:00	8.635	2.9563
164	3/15/1986	23:00:00	8.616	2.9451
165	4/28/2005	23:00:00	8.616	2.9451
166	2/13/1992	6:00:00	8.610	2.9416
167	10/28/1974	13:00:00	8.609	2.9410
168	12/18/1984	18:00:00	8.600	2.9357
169	12/7/1992	14:00:00	8.542	2.9016
170	11/25/1985	1:00:00	8.529	2.8939
171	2/8/1983	6:00:00	8.527	2.8928
172	1/29/1983	1:00:00	8.522	2.8898
173	9/10/1976	9:00:00	8.516	2.8863
174	3/24/1998	17:00:00	8.384	2.8090
175	1/27/1983	11:00:00	8.315	2.7688
176	1/4/1974	20:00:00	8.187	2.6945
177	3/1/1991	9:00:00	8.174	2.6869
178	3/1/1991	7:00:00	8.119	2.6551
179	2/14/1995	10:00:00	8.104	2.6465
180	5/9/1977	0:00:00	8.053	2.6171
181	2/19/1993	17:00:00	7.978	2.5739
182	11/25/1983	0:00:00	7.966	2.5670
183	4/20/1988	9:00:00	7.937	2.5504
184	2/5/1976	2:00:00	7.932	2.5475
185	3/5/1995	19:00:00	7.915	2.5378
186	3/11/2006	3:00:00	7.870	2.5121
187	3/19/1981	23:00:00	7.813	2.4796
188	3/22/2005	23:00:00	7.765	2.4522
189	11/20/1983	11:00:00	7.711	2.4216
190	4/5/2006	2:00:00	7.711	2.4216
191	3/5/1995	16:00:00	7.698	2.4142
192	12/18/1984	16:00:00	7.682	2.4051
193	10/19/2004	16:00:00	7.656	2.3904

143	3/5/1995	18:00:00	8.679	2.982
144	3/6/1980	10:00:00	8.607	2.940
145	2/27/1983	18:00:00	8.535	2.897
146	10/27/2004	9:00:00	8.515	2.886
147	2/14/2001	17:00:00	8.502	2.878
148	10/10/1986	4:00:00	8.495	2.874
149	2/8/1994	7:00:00	8.440	2.842
150	4/15/1976	21:00:00	8.360	2.795
151	1/17/1990	3:00:00	8.304	2.762
152	1/6/2008	7:00:00	8.299	2.759
153	1/18/1993	14:00:00	8.277	2.747
154	3/18/1983	23:00:00	8.219	2.713
155	1/9/2005	5:00:00	8.198	2.701
156	2/5/1978	15:00:00	8.192	2.697
157	1/4/2005	4:00:00	8.172	2.686
158	2/23/2004	17:00:00	8.093	2.640
159	2/14/1995	11:00:00	8.043	2.611
160	12/25/1988	0:00:00	8.018	2.597
161	2/21/2005	12:00:00	8.003	2.588
162	11/11/1978	22:00:00	7.809	2.477
163	3/5/2005	1:00:00	7.769	2.455
164	3/15/1986	23:00:00	7.752	2.445
165	4/28/2005	23:00:00	7.752	2.445
166	2/13/1992	6:00:00	7.747	2.442
167	10/28/1974	13:00:00	7.746	2.441
168	12/18/1984	18:00:00	7.738	2.437
169	12/7/1992	14:00:00	7.685	2.407
170	11/25/1985	1:00:00	7.674	2.401
171	2/8/1983	6:00:00	7.672	2.399
172	1/29/1983	1:00:00	7.667	2.397
173	9/10/1976	9:00:00	7.662	2.394
174	3/24/1998	17:00:00	7.544	2.327
175	1/27/1983	11:00:00	7.481	2.292
176	1/4/1974	20:00:00	7.366	2.227
177	3/1/1991	9:00:00	7.355	2.221
178	3/1/1991	7:00:00	7.305	2.194
179	2/14/1995	10:00:00	7.291	2.186
180	5/9/1977	0:00:00	7.245	2.160
181	2/19/1993	17:00:00	7.178	2.123
182	11/25/1983	0:00:00	7.167	2.117
183	4/20/1988	9:00:00	7.141	2.103
184	2/5/1976	2:00:00	7.137	2.101
185	3/5/1995	19:00:00	7.122	2.092
186	3/11/2006	3:00:00	7.081	2.070
187	3/19/1981	23:00:00	7.029	2.041
188	3/22/2005	23:00:00	6.987	2.018
189	11/20/1983	11:00:00	6.938	1.991
190	4/5/2006	2:00:00	6.938	1.991
191	3/5/1995	16:00:00	6.926	1.985
192	12/18/1984	16:00:00	6.912	1.977
193	10/19/2004	16:00:00	6.889	1.965

194	2/19/2007	12:00:00	7.619	2.3695
195	2/27/1983	6:00:00	7.604	2.3610
196	9/25/1986	6:00:00	7.599	2.3582
197	1/16/1993	11:00:00	7.568	2.3407
198	1/16/1993	10:00:00	7.565	2.3390
199	12/17/2002	17:00:00	7.563	2.3379
200	1/16/1993	9:00:00	7.550	2.3306
201	11/8/2004	1:00:00	7.549	2.3300
202	12/9/1996	19:00:00	7.529	2.3188
203	1/11/2005	8:00:00	7.528	2.3182
204	1/11/2005	3:00:00	7.515	2.3109
205	2/23/1998	17:00:00	7.506	2.3058
206	2/26/2004	17:00:00	7.506	2.3058
207	1/15/1993	16:00:00	7.481	2.2918
208	1/15/1993	14:00:00	7.473	2.2873
209	12/27/1984	19:00:00	7.471	2.2862
210	1/8/1993	0:00:00	7.426	2.2610
211	3/2/1992	17:00:00	7.416	2.2554
212	3/11/1975	14:00:00	7.392	2.2420
213	1/8/1974	3:00:00	7.374	2.2320
214	2/13/1978	13:00:00	7.360	2.2241
215	12/29/1976	14:00:00	7.353	2.2202
216	2/13/1978	0:00:00	7.349	2.2180
217	11/12/2003	9:00:00	7.335	2.2102
218	2/8/1983	7:00:00	7.324	2.2041
219	1/7/1974	18:00:00	7.320	2.2019
220	3/5/1978	8:00:00	7.314	2.1985
221	2/23/2005	1:00:00	7.286	2.1830
222	1/7/1993	4:00:00	7.270	2.1741
223	1/7/1993	3:00:00	7.250	2.1630
224	1/17/1978	3:00:00	7.241	2.1580
225	3/12/1978	2:00:00	7.226	2.1497
226	1/11/2001	8:00:00	7.212	2.1419
227	1/7/1993	0:00:00	7.201	2.1359
228	3/12/1978	1:00:00	7.200	2.1353
229	1/28/1980	22:00:00	7.176	2.1220
230	3/12/1978	0:00:00	7.169	2.1182
231	11/24/1978	13:00:00	7.167	2.1171
232	2/21/1980	5:00:00	7.165	2.1160
233	12/4/1974	11:00:00	7.140	2.1022
234	2/21/1980	1:00:00	7.119	2.0906
235	1/15/1978	6:00:00	7.093	2.0763
236	2/20/1980	18:00:00	7.063	2.0598
237	2/1/1996	4:00:00	7.054	2.0549
238	2/10/1978	4:00:00	7.005	2.0280
239	1/15/1978	3:00:00	6.993	2.0215
240	1/6/1979	3:00:00	6.974	2.0111
241	3/11/1986	2:00:00	6.955	2.0007
242	2/18/1980	6:00:00	6.953	1.9996
243	1/15/1978	2:00:00	6.946	1.9958
244	11/25/1985	4:00:00	6.926	1.9849

194	2/19/2007	12:00:00	6.855	1.946
195	2/27/1983	6:00:00	6.842	1.939
196	9/25/1986	6:00:00	6.837	1.937
197	1/16/1993	11:00:00	6.809	1.921
198	1/16/1993	10:00:00	6.806	1.920
199	12/17/2002	17:00:00	6.804	1.919
200	1/16/1993	9:00:00	6.793	1.913
201	11/8/2004	1:00:00	6.792	1.912
202	12/9/1996	19:00:00	6.774	1.903
203	1/11/2005	8:00:00	6.773	1.902
204	1/11/2005	3:00:00	6.761	1.895
205	2/23/1998	17:00:00	6.754	1.892
206	2/26/2004	17:00:00	6.754	1.892
207	1/15/1993	16:00:00	6.731	1.879
208	1/15/1993	14:00:00	6.724	1.876
209	12/27/1984	19:00:00	6.721	1.874
210	1/8/1993	0:00:00	6.681	1.852
211	3/2/1992	17:00:00	6.672	1.848
212	3/11/1975	14:00:00	6.651	1.836
213	1/8/1974	3:00:00	6.634	1.827
214	2/13/1978	13:00:00	6.622	1.821
215	12/29/1976	14:00:00	6.615	1.817
216	2/13/1978	0:00:00	6.612	1.815
217	11/12/2003	9:00:00	6.600	1.809
218	2/8/1983	7:00:00	6.589	1.803
219	1/7/1974	18:00:00	6.586	1.802
220	3/5/1978	8:00:00	6.581	1.799
221	2/23/2005	1:00:00	6.555	1.785
222	1/7/1993	4:00:00	6.541	1.778
223	1/7/1993	3:00:00	6.523	1.768
224	1/17/1978	3:00:00	6.515	1.764
225	3/12/1978	2:00:00	6.501	1.756
226	1/11/2001	8:00:00	6.489	1.750
227	1/7/1993	0:00:00	6.479	1.745
228	3/12/1978	1:00:00	6.478	1.744
229	1/28/1980	22:00:00	6.456	1.733
230	3/12/1978	0:00:00	6.450	1.729
231	11/24/1978	13:00:00	6.448	1.728
232	2/21/1980	5:00:00	6.447	1.728
233	12/4/1974	11:00:00	6.424	1.716
234	2/21/1980	1:00:00	6.405	1.706
235	1/15/1978	6:00:00	6.381	1.693
236	2/20/1980	18:00:00	6.355	1.679
237	2/1/1996	4:00:00	6.347	1.675
238	2/10/1978	4:00:00	6.302	1.651
239	1/15/1978	3:00:00	6.292	1.646
240	1/6/1979	3:00:00	6.275	1.637
241	3/11/1986	2:00:00	6.257	1.628
242	2/18/1980	6:00:00	6.256	1.627
243	1/15/1978	2:00:00	6.249	1.624
244	11/25/1985	4:00:00	6.232	1.615

245	1/14/1990	4:00:00	6.907	1.9746
246	2/22/1998	17:00:00	6.907	1.9746
247	1/15/1978	1:00:00	6.881	1.9604
248	2/7/1978	19:00:00	6.866	1.9523
249	3/24/1983	4:00:00	6.864	1.9512
250	3/5/1978	5:00:00	6.861	1.9496
251	2/18/1980	4:00:00	6.823	1.9290
252	3/16/1986	17:00:00	6.823	1.9290
253	1/29/1980	19:00:00	6.819	1.9268
254	1/29/1980	23:00:00	6.803	1.9182
255	1/11/1980	12:00:00	6.783	1.9074
256	1/4/1987	19:00:00	6.775	1.9030
257	1/16/1978	23:00:00	6.770	1.9003
258	1/27/1983	13:00:00	6.753	1.8912
259	12/19/1978	9:00:00	6.749	1.8890
260	1/31/1996	22:00:00	6.737	1.8826
261	1/28/2005	17:00:00	6.728	1.8777
262	1/11/1980	9:00:00	6.721	1.8739
263	1/18/1979	18:00:00	6.709	1.8675
264	1/5/1974	2:00:00	6.702	1.8637
265	4/20/1983	12:00:00	6.702	1.8637
266	3/2/1978	10:00:00	6.691	1.8578
267	3/2/1981	2:00:00	6.688	1.8562
268	11/24/1978	7:00:00	6.687	1.8557
269	2/9/1976	3:00:00	6.650	1.8358
270	12/3/1983	17:00:00	6.637	1.8289
271	1/7/1993	16:00:00	6.628	1.8240
272	1/29/1980	13:00:00	6.624	1.8219
273	3/5/1978	16:00:00	6.618	1.8187
274	2/8/1976	19:00:00	6.605	1.8117
275	1/5/1974	1:00:00	6.600	1.8091
276	12/7/1992	13:00:00	6.596	1.8069
277	3/11/2006	13:00:00	6.560	1.7877
278	4/20/1983	11:00:00	6.559	1.7872
279	1/3/2005	10:00:00	6.556	1.7856
280	2/11/1978	12:00:00	6.548	1.7814
281	11/4/1987	23:00:00	6.538	1.7760
282	1/19/1980	3:00:00	6.501	1.7564
283	1/11/1980	1:00:00	6.480	1.7452
284	1/5/1974	0:00:00	6.468	1.7389
285	2/8/1994	8:00:00	6.461	1.7352
286	2/19/2007	16:00:00	6.456	1.7325
287	12/18/1978	23:00:00	6.433	1.7204
288	2/12/2005	16:00:00	6.432	1.7198
289	3/1/1978	11:00:00	6.427	1.7172
290	12/20/2002	17:00:00	6.423	1.7151
291	2/7/1976	5:00:00	6.412	1.7093
292	3/1/1991	10:00:00	6.410	1.7082
293	3/1/1978	9:00:00	6.365	1.6845
294	3/1/1991	8:00:00	6.360	1.6819
295	2/7/1998	16:00:00	6.349	1.6761

245	1/14/1990	4:00:00	6.214	1.606
246	2/22/1998	17:00:00	6.214	1.606
247	1/15/1978	1:00:00	6.191	1.594
248	2/7/1978	19:00:00	6.178	1.587
249	3/24/1983	4:00:00	6.175	1.585
250	3/5/1978	5:00:00	6.173	1.584
251	2/18/1980	4:00:00	6.139	1.567
252	3/16/1986	17:00:00	6.139	1.567
253	1/29/1980	19:00:00	6.135	1.565
254	1/29/1980	23:00:00	6.121	1.557
255	1/11/1980	12:00:00	6.103	1.548
256	1/4/1987	19:00:00	6.096	1.544
257	1/16/1978	23:00:00	6.091	1.542
258	1/27/1983	13:00:00	6.076	1.534
259	12/19/1978	9:00:00	6.072	1.532
260	1/31/1996	22:00:00	6.062	1.527
261	1/28/2005	17:00:00	6.053	1.522
262	1/11/1980	9:00:00	6.047	1.519
263	1/18/1979	18:00:00	6.036	1.513
264	1/5/1974	2:00:00	6.030	1.510
265	4/20/1983	12:00:00	6.030	1.510
266	3/2/1978	10:00:00	6.020	1.505
267	3/2/1981	2:00:00	6.018	1.504
268	11/24/1978	7:00:00	6.016	1.503
269	2/9/1976	3:00:00	5.983	1.486
270	12/3/1983	17:00:00	5.971	1.480
271	1/7/1993	16:00:00	5.963	1.476
272	1/29/1980	13:00:00	5.960	1.475
273	3/5/1978	16:00:00	5.954	1.471
274	2/8/1976	19:00:00	5.943	1.466
275	1/5/1974	1:00:00	5.938	1.463
276	12/7/1992	13:00:00	5.935	1.462
277	3/11/2006	13:00:00	5.902	1.445
278	4/20/1983	11:00:00	5.901	1.444
279	1/3/2005	10:00:00	5.898	1.443
280	2/11/1978	12:00:00	5.891	1.439
281	11/4/1987	23:00:00	5.883	1.435
282	1/19/1980	3:00:00	5.849	1.418
283	1/11/1980	1:00:00	5.831	1.409
284	1/5/1974	0:00:00	5.819	1.403
285	2/8/1994	8:00:00	5.813	1.400
286	2/19/2007	16:00:00	5.809	1.398
287	12/18/1978	23:00:00	5.788	1.387
288	2/12/2005	16:00:00	5.787	1.387
289	3/1/1978	11:00:00	5.782	1.384
290	12/20/2002	17:00:00	5.779	1.383
291	2/7/1976	5:00:00	5.769	1.378
292	3/1/1991	10:00:00	5.768	1.377
293	3/1/1978	9:00:00	5.727	1.357
294	3/1/1991	8:00:00	5.723	1.355
295	2/7/1998	16:00:00	5.712	1.349

296	1/29/1980	9:00:00	6.335	1.6688
297	3/1/1978	8:00:00	6.324	1.6630
298	1/31/1979	10:00:00	6.319	1.6604
299	3/11/1978	23:00:00	6.315	1.6583
300	1/11/2005	2:00:00	6.315	1.6583
301	3/1/1978	7:00:00	6.278	1.6389
302	3/5/1995	22:00:00	6.275	1.6373
303	1/4/1974	23:00:00	6.274	1.6368
304	2/8/1993	21:00:00	6.272	1.6358
305	3/24/1994	23:00:00	6.270	1.6347
306	2/12/2005	8:00:00	6.252	1.6253
307	1/6/1992	12:00:00	6.243	1.6206
308	3/5/1995	21:00:00	6.236	1.6170
309	2/22/2008	7:00:00	6.222	1.6097
310	11/23/1973	3:00:00	6.219	1.6081
311	12/5/2004	15:00:00	6.201	1.5988
312	1/31/1979	9:00:00	6.186	1.5910
313	2/27/1996	23:00:00	6.180	1.5878
314	11/23/1973	0:00:00	6.134	1.5640
315	1/29/1980	5:00:00	6.116	1.5547
316	1/12/1993	16:00:00	6.069	1.5305
317	2/6/1976	7:00:00	6.062	1.5268
318	3/11/1995	7:00:00	6.056	1.5238
319	3/10/1980	18:00:00	6.000	1.4950
320	1/13/1993	21:00:00	5.992	1.4909
321	1/29/1980	4:00:00	5.983	1.4863
322	3/28/1979	21:00:00	5.969	1.4791
323	4/7/1978	5:00:00	5.912	1.4501
324	11/4/1987	19:00:00	5.875	1.4313
325	1/12/1993	19:00:00	5.860	1.4237
326	2/5/1978	18:00:00	5.825	1.4060
327	3/2/1983	16:00:00	5.817	1.4019
328	4/14/1998	17:00:00	5.785	1.3858
329	1/5/1978	22:00:00	5.783	1.3848
330	3/1/1978	6:00:00	5.747	1.3667
331	10/19/2004	18:00:00	5.743	1.3647
332	12/29/2004	6:00:00	5.732	1.3591
333	2/20/1980	5:00:00	5.728	1.3571
334	4/2/1974	6:00:00	5.721	1.3536
335	1/31/1979	7:00:00	5.717	1.3516
336	1/15/1993	19:00:00	5.702	1.3441
337	11/24/1978	3:00:00	5.697	1.3416
338	1/29/1980	2:00:00	5.655	1.3207
339	1/9/2005	23:00:00	5.627	1.3067
340	3/5/1995	13:00:00	5.602	1.2943
341	12/17/1978	23:00:00	5.595	1.2908
342	1/4/1974	21:00:00	5.578	1.2824
343	2/11/2003	17:00:00	5.567	1.2770
344	3/16/1986	22:00:00	5.540	1.2637
345	1/9/1978	19:00:00	5.539	1.2632
346	3/1/1983	15:00:00	5.520	1.2538

296	1/29/1980	9:00:00	5.700	1.343
297	3/1/1978	8:00:00	5.690	1.338
298	1/31/1979	10:00:00	5.686	1.336
299	3/11/1978	23:00:00	5.681	1.334
300	1/11/2005	2:00:00	5.681	1.334
301	3/1/1978	7:00:00	5.649	1.318
302	1/4/1974	23:00:00	5.645	1.316
303	3/5/1995	22:00:00	5.645	1.316
304	2/8/1993	21:00:00	5.643	1.315
305	3/24/1994	23:00:00	5.641	1.314
306	2/12/2005	8:00:00	5.625	1.306
307	1/6/1992	12:00:00	5.617	1.302
308	3/5/1995	21:00:00	5.611	1.299
309	2/22/2008	7:00:00	5.598	1.292
310	11/23/1973	3:00:00	5.595	1.291
311	12/5/2004	15:00:00	5.579	1.283
312	1/31/1979	9:00:00	5.566	1.276
313	2/27/1996	23:00:00	5.560	1.274
314	11/23/1973	0:00:00	5.519	1.253
315	1/29/1980	5:00:00	5.503	1.245
316	1/12/1993	16:00:00	5.461	1.225
317	2/6/1976	7:00:00	5.454	1.221
318	3/11/1995	7:00:00	5.449	1.219
319	3/10/1980	18:00:00	5.398	1.194
320	1/13/1993	21:00:00	5.391	1.191
321	1/29/1980	4:00:00	5.383	1.187
322	3/28/1979	21:00:00	5.370	1.180
323	4/7/1978	5:00:00	5.319	1.156
324	11/4/1987	19:00:00	5.285	1.139
325	1/12/1993	19:00:00	5.272	1.133
326	2/5/1978	18:00:00	5.241	1.118
327	3/2/1983	16:00:00	5.234	1.115
328	4/14/1998	17:00:00	5.205	1.101
329	1/5/1978	22:00:00	5.203	1.100
330	3/1/1978	6:00:00	5.171	1.085
331	10/19/2004	18:00:00	5.167	1.083
332	12/29/2004	6:00:00	5.158	1.079
333	2/20/1980	5:00:00	5.154	1.077
334	4/2/1974	6:00:00	5.148	1.074
335	1/31/1979	7:00:00	5.144	1.072
336	1/15/1993	19:00:00	5.130	1.065
337	11/24/1978	3:00:00	5.126	1.063
338	1/29/1980	2:00:00	5.088	1.045
339	1/9/2005	23:00:00	5.063	1.034
340	3/5/1995	13:00:00	5.040	1.023
341	12/17/1978	23:00:00	5.034	1.020
342	1/4/1974	21:00:00	5.018	1.013
343	2/11/2003	17:00:00	5.009	1.008
344	1/9/1978	19:00:00	4.984	0.997
345	3/16/1986	22:00:00	4.984	0.997
346	3/1/1983	15:00:00	4.967	0.989

347	2/22/2005	22:00:00	5.514	1.2508
348	2/14/1995	12:00:00	5.498	1.2430
349	1/7/1993	8:00:00	5.497	1.2425
350	1/29/1983	2:00:00	5.495	1.2415
351	12/6/1998	7:00:00	5.483	1.2356
352	3/5/1995	12:00:00	5.447	1.2180
353	1/25/1995	23:00:00	5.426	1.2077
354	4/5/2006	1:00:00	5.380	1.1853
355	3/10/1986	21:00:00	5.371	1.1809
356	1/6/1993	22:00:00	5.358	1.1746
357	12/11/1984	11:00:00	5.350	1.1708
358	3/5/1981	18:00:00	5.307	1.1500
359	12/11/1984	10:00:00	5.301	1.1471
360	12/27/1984	4:00:00	5.242	1.1187
361	2/1/1996	3:00:00	5.237	1.1163
362	11/24/1984	22:00:00	5.236	1.1158
363	3/12/1995	0:00:00	5.221	1.1087
364	2/21/2005	7:00:00	5.193	1.0953
365	8/17/1977	1:00:00	5.187	1.0924
366	1/31/1996	21:00:00	5.163	1.0810
367	1/14/1990	5:00:00	5.156	1.0777
368	2/7/1978	18:00:00	5.152	1.0758
369	12/18/1984	19:00:00	5.126	1.0634
370	10/31/1987	18:00:00	5.099	1.0507
371	1/5/1992	16:00:00	5.075	1.0393
372	12/19/1978	7:00:00	5.072	1.0379
373	12/7/1992	15:00:00	5.065	1.0346
374	3/26/1991	3:00:00	5.058	1.0313
375	2/28/2006	2:00:00	5.035	1.0205
376	1/27/2008	3:00:00	5.007	1.0074
377	1/26/1997	3:00:00	4.995	1.0018
378	1/14/1978	19:00:00	4.973	0.9916
379	1/11/2001	7:00:00	4.942	0.9771
380	1/6/1993	14:00:00	4.926	0.9697
381	2/5/1976	17:00:00	4.917	0.9656
382	2/20/1993	7:00:00	4.904	0.9595
383	11/21/2004	8:00:00	4.887	0.9517
384	2/2/1998	16:00:00	4.886	0.9512
385	12/18/1984	17:00:00	4.881	0.9489
386	1/10/1995	21:00:00	4.877	0.9471
387	1/18/1979	8:00:00	4.806	0.9145
388	1/5/1992	15:00:00	4.781	0.9031
389	3/2/1992	10:00:00	4.737	0.8831
390	3/1/1981	5:00:00	4.715	0.8732
391	10/27/2004	15:00:00	4.706	0.8691
392	1/7/2008	3:00:00	4.700	0.8664
393	5/2/1980	0:00:00	4.693	0.8633
394	11/29/1985	15:00:00	4.674	0.8547
395	2/8/1976	17:00:00	4.669	0.8525
396	3/1/1991	11:00:00	4.643	0.8408
397	9/3/1976	17:00:00	4.604	0.8234

347	2/22/2005	22:00:00	4.961	0.986
348	2/14/1995	12:00:00	4.947	0.979
349	1/7/1993	8:00:00	4.945	0.979
350	1/29/1983	2:00:00	4.944	0.978
351	12/6/1998	7:00:00	4.933	0.973
352	3/5/1995	12:00:00	4.901	0.958
353	1/25/1995	23:00:00	4.882	0.949
354	4/5/2006	1:00:00	4.841	0.931
355	3/10/1986	21:00:00	4.832	0.926
356	1/6/1993	22:00:00	4.820	0.921
357	12/11/1984	11:00:00	4.814	0.918
358	3/5/1981	18:00:00	4.775	0.900
359	12/11/1984	10:00:00	4.769	0.898
360	12/27/1984	4:00:00	4.716	0.874
361	2/1/1996	3:00:00	4.712	0.872
362	11/24/1984	22:00:00	4.711	0.871
363	3/12/1995	0:00:00	4.698	0.866
364	2/21/2005	7:00:00	4.672	0.854
365	8/17/1977	1:00:00	4.667	0.852
366	1/31/1996	21:00:00	4.645	0.842
367	1/14/1990	5:00:00	4.639	0.839
368	2/7/1978	18:00:00	4.636	0.838
369	12/18/1984	19:00:00	4.612	0.827
370	10/31/1987	18:00:00	4.588	0.816
371	1/5/1992	16:00:00	4.566	0.807
372	12/19/1978	7:00:00	4.563	0.805
373	12/7/1992	15:00:00	4.557	0.803
374	3/26/1991	3:00:00	4.551	0.800
375	2/28/2006	2:00:00	4.530	0.791
376	1/27/2008	3:00:00	4.505	0.780
377	1/26/1997	3:00:00	4.494	0.775
378	1/14/1978	19:00:00	4.475	0.767
379	1/11/2001	7:00:00	4.446	0.754
380	1/6/1993	14:00:00	4.432	0.748
381	2/5/1976	17:00:00	4.424	0.744
382	2/20/1993	7:00:00	4.412	0.739
383	2/2/1998	16:00:00	4.396	0.732
384	11/21/2004	8:00:00	4.396	0.732
385	12/18/1984	17:00:00	4.392	0.730
386	1/10/1995	21:00:00	4.388	0.729
387	1/18/1979	8:00:00	4.324	0.701
388	1/5/1992	15:00:00	4.301	0.691
389	3/2/1992	10:00:00	4.262	0.675
390	3/1/1981	5:00:00	4.242	0.666
391	10/27/2004	15:00:00	4.234	0.663
392	1/7/2008	3:00:00	4.229	0.661
393	5/2/1980	0:00:00	4.223	0.658
394	11/29/1985	15:00:00	4.205	0.651
395	2/8/1976	17:00:00	4.201	0.649
396	3/1/1991	11:00:00	4.177	0.639
397	9/3/1976	17:00:00	4.142	0.625

398	2/12/2005	11:00:00	4.583	0.8141
399	2/5/1976	3:00:00	4.523	0.7876
400	1/7/2008	5:00:00	4.515	0.7840
401	3/1/1991	6:00:00	4.508	0.7810
402	2/15/1986	9:00:00	4.469	0.7639
403	3/1/1991	5:00:00	4.469	0.7639
404	1/7/2005	14:00:00	4.430	0.7469
405	12/17/1987	7:00:00	4.368	0.7201
406	9/25/1986	7:00:00	4.362	0.7175
407	12/11/1984	8:00:00	4.286	0.6850
408	3/6/1980	8:00:00	4.282	0.6833
409	1/27/1983	9:00:00	4.269	0.6778
410	3/8/1975	13:00:00	4.268	0.6774
411	11/25/1985	10:00:00	4.248	0.6689
412	10/19/2004	19:00:00	4.240	0.6656
413	8/17/1977	4:00:00	4.223	0.6584
414	2/28/2006	8:00:00	4.213	0.6542
415	3/1/1991	2:00:00	4.171	0.6366
416	1/6/1979	4:00:00	4.164	0.6337
417	2/2/1983	15:00:00	4.163	0.6333
418	11/25/1985	9:00:00	4.147	0.6266
419	10/20/1979	16:00:00	4.139	0.6233
420	3/6/1975	12:00:00	4.118	0.6146
421	4/29/1980	1:00:00	4.104	0.6088
422	4/20/1983	10:00:00	4.103	0.6084
423	2/7/1998	15:00:00	4.100	0.6072
424	2/13/1998	16:00:00	4.067	0.5936
425	1/10/1980	12:00:00	4.064	0.5924
426	12/4/1974	13:00:00	4.058	0.5900
427	12/30/1981	15:00:00	4.049	0.5863
428	3/2/1983	22:00:00	4.049	0.5863
429	3/3/1983	5:00:00	4.044	0.5842
430	3/3/1983	9:00:00	4.023	0.5757
431	3/5/1995	15:00:00	4.014	0.5720
432	2/28/1983	2:00:00	4.012	0.5712
433	1/16/1993	12:00:00	3.997	0.5652
434	1/16/1993	13:00:00	3.985	0.5603
435	3/3/1983	3:00:00	3.969	0.5539
436	1/11/2005	6:00:00	3.964	0.5519
437	1/11/2005	7:00:00	3.943	0.5435
438	11/1/1974	23:00:00	3.897	0.5251
439	2/12/2005	7:00:00	3.893	0.5236
440	1/10/2005	1:00:00	3.887	0.5212
441	10/19/2004	14:00:00	3.871	0.5149
442	3/12/1986	14:00:00	3.832	0.4995
443	1/7/1993	22:00:00	3.825	0.4968
444	12/25/2003	20:00:00	3.825	0.4968
445	3/12/1986	13:00:00	3.824	0.4964
446	1/9/2005	9:00:00	3.805	0.4890
447	1/13/1993	23:00:00	3.802	0.4878
448	1/12/1995	14:00:00	3.797	0.4859

398	2/12/2005	11:00:00	4.124	0.617
399	2/5/1976	3:00:00	4.069	0.594
400	1/7/2008	5:00:00	4.062	0.592
401	3/1/1991	6:00:00	4.056	0.589
402	2/15/1986	9:00:00	4.021	0.575
403	3/1/1991	5:00:00	4.021	0.575
404	1/7/2005	14:00:00	3.986	0.561
405	12/17/1987	7:00:00	3.930	0.538
406	9/25/1986	7:00:00	3.925	0.536
407	12/11/1984	8:00:00	3.856	0.509
408	3/6/1980	8:00:00	3.852	0.507
409	1/27/1983	9:00:00	3.841	0.503
410	3/8/1975	13:00:00	3.840	0.503
411	11/25/1985	10:00:00	3.822	0.496
412	10/19/2004	19:00:00	3.815	0.493
413	8/17/1977	4:00:00	3.799	0.487
414	2/28/2006	8:00:00	3.790	0.483
415	3/1/1991	2:00:00	3.753	0.469
416	1/6/1979	4:00:00	3.747	0.467
417	2/2/1983	15:00:00	3.746	0.466
418	11/25/1985	9:00:00	3.731	0.460
419	10/20/1979	16:00:00	3.724	0.458
420	3/6/1975	12:00:00	3.705	0.451
421	4/29/1980	1:00:00	3.692	0.446
422	4/20/1983	10:00:00	3.692	0.446
423	2/7/1998	15:00:00	3.689	0.444
424	2/13/1998	16:00:00	3.659	0.433
425	1/10/1980	12:00:00	3.657	0.432
426	12/4/1974	13:00:00	3.651	0.430
427	12/30/1981	15:00:00	3.643	0.427
428	3/2/1983	22:00:00	3.643	0.427
429	3/3/1983	5:00:00	3.638	0.425
430	3/3/1983	9:00:00	3.619	0.418
431	3/5/1995	15:00:00	3.612	0.416
432	2/28/1983	2:00:00	3.609	0.414
433	1/16/1993	12:00:00	3.596	0.410
434	1/16/1993	13:00:00	3.585	0.406
435	3/3/1983	3:00:00	3.571	0.400
436	1/11/2005	6:00:00	3.567	0.399
437	1/11/2005	7:00:00	3.547	0.392
438	11/1/1974	23:00:00	3.506	0.377
439	2/12/2005	7:00:00	3.503	0.376
440	1/10/2005	1:00:00	3.497	0.373
441	10/19/2004	14:00:00	3.483	0.368
442	3/12/1986	14:00:00	3.448	0.356
443	3/12/1986	13:00:00	3.441	0.353
444	1/7/1993	22:00:00	3.441	0.353
445	12/25/2003	20:00:00	3.441	0.353
446	1/9/2005	9:00:00	3.423	0.347
447	1/13/1993	23:00:00	3.421	0.346
448	1/12/1995	14:00:00	3.417	0.345

449	3/6/1994	21:00:00	3.785	0.4812
450	1/7/1993	20:00:00	3.784	0.4809
451	1/17/1993	5:00:00	3.771	0.4758
452	1/15/1993	13:00:00	3.759	0.4712
453	3/26/1975	4:00:00	3.755	0.4697
454	3/16/1986	23:00:00	3.754	0.4693
455	12/27/1984	3:00:00	3.736	0.4624
456	3/25/1994	0:00:00	3.735	0.4620
457	2/22/2005	21:00:00	3.719	0.4559
458	1/7/1993	5:00:00	3.713	0.4536
459	1/7/1993	6:00:00	3.708	0.4517
460	2/22/2005	20:00:00	3.702	0.4494
461	12/29/2004	3:00:00	3.687	0.4437
462	3/12/1986	12:00:00	3.682	0.4418
463	10/20/1979	15:00:00	3.643	0.4271
464	1/7/1993	2:00:00	3.639	0.4256
465	11/25/1985	5:00:00	3.622	0.4193
466	1/14/1993	1:00:00	3.619	0.4182
467	11/11/1985	13:00:00	3.610	0.4148
468	1/6/1993	23:00:00	3.610	0.4148
469	1/5/1992	20:00:00	3.599	0.4107
470	1/25/1995	21:00:00	3.587	0.4063
471	1/13/1993	1:00:00	3.578	0.4029
472	3/20/1981	5:00:00	3.573	0.4011
473	3/2/1983	2:00:00	3.572	0.4007
474	3/5/2005	2:00:00	3.571	0.4004
475	1/26/1997	9:00:00	3.556	0.3949
476	1/5/1992	19:00:00	3.547	0.3916
477	11/24/1984	23:00:00	3.542	0.3897
478	1/7/1993	11:00:00	3.527	0.3842
479	2/1/1996	5:00:00	3.520	0.3817
480	12/7/1992	20:00:00	3.515	0.3799
481	4/26/1994	18:00:00	3.514	0.3795
482	1/5/1992	18:00:00	3.481	0.3676
483	1/25/1995	12:00:00	3.469	0.3633
484	1/26/1997	8:00:00	3.462	0.3608
485	9/25/1986	5:00:00	3.432	0.3501
486	1/5/1992	17:00:00	3.408	0.3416
487	3/28/1979	10:00:00	3.406	0.3409
488	3/2/1983	5:00:00	3.400	0.3388
489	2/6/1976	2:00:00	3.388	0.3346
490	2/21/2005	6:00:00	3.376	0.3304
491	1/12/1993	20:00:00	3.371	0.3286
492	1/6/1993	16:00:00	3.344	0.3193
493	8/17/1977	2:00:00	3.315	0.3093
494	12/7/1992	11:00:00	3.311	0.3079
495	11/4/1987	22:00:00	3.306	0.3062
496	3/13/1996	2:00:00	3.304	0.3055
497	2/7/1998	18:00:00	3.279	0.2970
498	1/10/1995	23:00:00	3.276	0.2960
499	3/4/2005	23:00:00	3.272	0.2946

449	3/6/1994	21:00:00	3.405	0.341
450	1/7/1993	20:00:00	3.404	0.340
451	1/17/1993	5:00:00	3.393	0.336
452	1/15/1993	13:00:00	3.382	0.332
453	3/26/1975	4:00:00	3.379	0.331
454	3/16/1986	23:00:00	3.378	0.331
455	12/27/1984	3:00:00	3.361	0.325
456	3/25/1994	0:00:00	3.361	0.325
457	2/22/2005	21:00:00	3.346	0.320
458	1/7/1993	5:00:00	3.340	0.318
459	1/7/1993	6:00:00	3.336	0.316
460	2/22/2005	20:00:00	3.331	0.315
461	12/29/2004	3:00:00	3.317	0.310
462	3/12/1986	12:00:00	3.312	0.308
463	10/20/1979	15:00:00	3.277	0.296
464	1/7/1993	2:00:00	3.274	0.295
465	11/25/1985	5:00:00	3.259	0.290
466	1/14/1993	1:00:00	3.256	0.289
467	11/11/1985	13:00:00	3.248	0.287
468	1/6/1993	23:00:00	3.248	0.287
469	1/5/1992	20:00:00	3.238	0.283
470	1/25/1995	21:00:00	3.227	0.280
471	1/13/1993	1:00:00	3.219	0.277
472	3/20/1981	5:00:00	3.214	0.275
473	3/2/1983	2:00:00	3.213	0.275
474	3/5/2005	2:00:00	3.213	0.275
475	1/26/1997	9:00:00	3.200	0.271
476	1/5/1992	19:00:00	3.191	0.268
477	11/24/1984	23:00:00	3.187	0.266
478	1/7/1993	11:00:00	3.174	0.262
479	2/1/1996	5:00:00	3.167	0.260
480	12/7/1992	20:00:00	3.162	0.258
481	4/26/1994	18:00:00	3.161	0.258
482	1/5/1992	18:00:00	3.132	0.248
483	1/25/1995	12:00:00	3.121	0.245
484	1/26/1997	8:00:00	3.115	0.243
485	9/25/1986	5:00:00	3.087	0.234
486	1/5/1992	17:00:00	3.066	0.227
487	3/28/1979	10:00:00	3.064	0.227
488	3/2/1983	5:00:00	3.059	0.225
489	2/6/1976	2:00:00	3.048	0.222
490	2/21/2005	6:00:00	3.038	0.219
491	1/12/1993	20:00:00	3.033	0.217
492	1/6/1993	16:00:00	3.008	0.209
493	8/17/1977	2:00:00	2.983	0.202
494	12/7/1992	11:00:00	2.979	0.201
495	11/4/1987	22:00:00	2.975	0.199
496	3/13/1996	2:00:00	2.973	0.199
497	2/7/1998	18:00:00	2.951	0.192
498	1/10/1995	23:00:00	2.947	0.191
499	3/4/2005	23:00:00	2.944	0.190

500	1/31/1996	23:00:00	3.262	0.2913
501	2/27/1983	7:00:00	3.239	0.2835
502	12/10/1984	20:00:00	3.221	0.2775
503	2/18/2005	6:00:00	3.219	0.2769
504	3/28/1979	20:00:00	3.197	0.2696
505	12/4/1974	10:00:00	3.196	0.2693
506	12/30/1981	14:00:00	3.179	0.2637
507	1/12/1993	23:00:00	3.155	0.2559
508	2/17/1997	21:00:00	3.146	0.2530
509	1/12/2001	13:00:00	3.144	0.2523
510	12/16/1987	21:00:00	3.127	0.2468
511	4/20/1988	12:00:00	3.109	0.2411
512	12/28/1984	0:00:00	3.104	0.2395
513	12/29/1991	18:00:00	3.045	0.2209
514	12/28/1977	9:00:00	3.044	0.2206
515	3/25/1998	17:00:00	3.043	0.2203
516	3/26/1998	17:00:00	3.043	0.2203
517	3/30/1998	17:00:00	3.043	0.2203
518	2/22/2008	8:00:00	3.029	0.2159
519	3/2/1983	21:00:00	3.027	0.2153
520	1/7/2008	6:00:00	3.023	0.2141
521	12/27/1984	20:00:00	3.013	0.2110
522	2/14/2008	17:00:00	3.013	0.2110
523	2/21/2005	5:00:00	3.011	0.2104
524	2/19/2007	17:00:00	2.986	0.2028
525	1/8/1974	4:00:00	2.978	0.2003
526	11/30/2002	17:00:00	2.973	0.1988
527	11/24/1984	18:00:00	2.972	0.1985
528	12/16/1987	19:00:00	2.957	0.1940
529	1/8/1974	5:00:00	2.955	0.1934
530	1/9/1980	17:00:00	2.948	0.1913
531	2/14/1978	0:00:00	2.938	0.1884
532	1/7/1974	19:00:00	2.928	0.1854
533	2/13/1978	23:00:00	2.928	0.1854
534	12/5/1997	17:00:00	2.926	0.1848
535	11/11/1985	12:00:00	2.917	0.1822
536	3/5/1978	12:00:00	2.892	0.1749
537	3/5/1978	6:00:00	2.890	0.1743
538	3/1/1991	12:00:00	2.880	0.1714
539	1/7/1974	16:00:00	2.874	0.1697
540	2/11/1978	13:00:00	2.865	0.1671
541	12/19/1987	18:00:00	2.865	0.1671
542	12/7/2007	9:00:00	2.865	0.1671
543	1/7/1974	15:00:00	2.855	0.1642
544	11/25/2001	17:00:00	2.853	0.1636
545	2/28/1978	19:00:00	2.851	0.1631
546	2/15/1986	11:00:00	2.846	0.1617
547	2/12/2005	2:00:00	2.846	0.1617
548	12/5/2004	16:00:00	2.842	0.1605
549	10/20/2004	17:00:00	2.831	0.1574
550	12/16/1987	18:00:00	2.820	0.1543

500	1/31/1996	23:00:00	2.935	0.187
501	2/27/1983	7:00:00	2.915	0.182
502	12/10/1984	20:00:00	2.898	0.177
503	2/18/2005	6:00:00	2.897	0.176
504	3/28/1979	20:00:00	2.876	0.170
505	12/4/1974	10:00:00	2.875	0.170
506	12/30/1981	14:00:00	2.860	0.166
507	1/12/1993	23:00:00	2.838	0.159
508	2/17/1997	21:00:00	2.831	0.157
509	1/12/2001	13:00:00	2.829	0.157
510	12/16/1987	21:00:00	2.813	0.152
511	4/20/1988	12:00:00	2.797	0.148
512	12/28/1984	0:00:00	2.793	0.147
513	12/28/1977	9:00:00	2.739	0.132
514	12/29/1991	18:00:00	2.739	0.132
515	3/25/1998	17:00:00	2.738	0.132
516	3/26/1998	17:00:00	2.738	0.132
517	3/30/1998	17:00:00	2.738	0.132
518	2/22/2008	8:00:00	2.726	0.129
519	3/2/1983	21:00:00	2.724	0.128
520	1/7/2008	6:00:00	2.720	0.127
521	12/27/1984	20:00:00	2.711	0.125
522	2/14/2008	17:00:00	2.711	0.125
523	2/21/2005	5:00:00	2.709	0.124
524	2/19/2007	17:00:00	2.687	0.119
525	1/8/1974	4:00:00	2.680	0.117
526	11/24/1984	18:00:00	2.674	0.115
527	11/30/2002	17:00:00	2.674	0.115
528	12/16/1987	19:00:00	2.661	0.112
529	1/8/1974	5:00:00	2.659	0.111
530	1/9/1980	17:00:00	2.653	0.110
531	2/14/1978	0:00:00	2.644	0.108
532	1/7/1974	19:00:00	2.634	0.105
533	2/13/1978	23:00:00	2.634	0.105
534	12/5/1997	17:00:00	2.633	0.105
535	11/11/1985	12:00:00	2.625	0.103
536	3/5/1978	12:00:00	2.602	0.097
537	3/5/1978	6:00:00	2.600	0.097
538	3/1/1991	12:00:00	2.592	0.095
539	1/7/1974	16:00:00	2.586	0.093
540	2/11/1978	13:00:00	2.578	0.091
541	12/19/1987	18:00:00	2.577	0.091
542	12/7/2007	9:00:00	2.577	0.091
543	1/7/1974	15:00:00	2.569	0.089
544	11/25/2001	17:00:00	2.567	0.089
545	2/28/1978	19:00:00	2.565	0.088
546	2/15/1986	11:00:00	2.560	0.087
547	2/12/2005	2:00:00	2.560	0.087
548	12/5/2004	16:00:00	2.557	0.086
549	10/20/2004	17:00:00	2.548	0.084
550	12/16/1987	18:00:00	2.537	0.082

551	2/12/2005	14:00:00	2.810	0.1515
552	2/28/1991	16:00:00	2.802	0.1493
553	3/10/1975	18:00:00	2.776	0.1422
554	3/10/1975	17:00:00	2.757	0.1370
555	2/28/2006	10:00:00	2.746	0.1341
556	3/16/1986	0:00:00	2.739	0.1322
557	3/10/1975	16:00:00	2.736	0.1314
558	2/28/2006	1:00:00	2.725	0.1285
559	1/17/1978	2:00:00	2.717	0.1264
560	3/4/1978	22:00:00	2.717	0.1264
561	2/16/1998	16:00:00	2.713	0.1253
562	3/10/1975	15:00:00	2.712	0.1250
563	1/8/1974	7:00:00	2.706	0.1235
564	3/13/1996	10:00:00	2.706	0.1235
565	2/19/1993	18:00:00	2.704	0.1230
566	2/20/1980	6:00:00	2.697	0.1211
567	4/12/1999	4:00:00	2.696	0.1209
568	12/6/1986	18:00:00	2.695	0.1206
569	1/9/2005	8:00:00	2.695	0.1206
570	3/4/1978	21:00:00	2.680	0.1167
571	3/10/1975	14:00:00	2.665	0.1129
572	1/17/1978	1:00:00	2.660	0.1116
573	2/19/1980	17:00:00	2.657	0.1109
574	3/1/1991	4:00:00	2.652	0.1096
575	11/24/1978	12:00:00	2.647	0.1083
576	12/29/1991	17:00:00	2.639	0.1063
577	1/15/1978	5:00:00	2.638	0.1061
578	3/1/1991	3:00:00	2.634	0.1051
579	2/2/1983	16:00:00	2.628	0.1036
580	1/17/1978	0:00:00	2.621	0.1019
581	1/5/1974	11:00:00	2.601	0.0970
582	12/16/1987	17:00:00	2.598	0.0963
583	3/1/1976	20:00:00	2.594	0.0953
584	4/2/1974	5:00:00	2.592	0.0948
585	3/6/1980	6:00:00	2.582	0.0924
586	3/1/1981	13:00:00	2.580	0.0919
587	2/15/1986	8:00:00	2.555	0.0860
588	2/19/1993	21:00:00	2.544	0.0835
589	12/26/1977	16:00:00	2.540	0.0825
590	1/5/1974	10:00:00	2.538	0.0821
591	2/27/1991	22:00:00	2.527	0.0795
592	2/11/1978	15:00:00	2.521	0.0782
593	3/25/1994	2:00:00	2.517	0.0773
594	3/11/1975	0:00:00	2.511	0.0759
595	3/5/1981	19:00:00	2.510	0.0757
596	1/18/1979	19:00:00	2.483	0.0697
597	12/26/1977	14:00:00	2.477	0.0684
598	1/6/1992	0:00:00	2.471	0.0671
599	3/10/1975	22:00:00	2.469	0.0667
600	12/16/1987	15:00:00	2.469	0.0667
601	12/19/1987	17:00:00	2.465	0.0658

551	2/12/2005	14:00:00	2.528	0.080
552	2/28/1991	16:00:00	2.521	0.078
553	3/10/1975	18:00:00	2.497	0.073
554	3/10/1975	17:00:00	2.480	0.069
555	2/28/2006	10:00:00	2.470	0.067
556	3/16/1986	0:00:00	2.465	0.066
557	3/10/1975	16:00:00	2.462	0.065
558	2/28/2006	1:00:00	2.451	0.063
559	1/17/1978	2:00:00	2.445	0.062
560	3/4/1978	22:00:00	2.445	0.062
561	2/16/1998	16:00:00	2.441	0.061
562	3/10/1975	15:00:00	2.440	0.060
563	1/8/1974	7:00:00	2.435	0.059
564	3/13/1996	10:00:00	2.435	0.059
565	2/19/1993	18:00:00	2.433	0.059
566	2/20/1980	6:00:00	2.427	0.058
567	4/12/1999	4:00:00	2.426	0.058
568	12/6/1986	18:00:00	2.425	0.057
569	1/9/2005	8:00:00	2.425	0.057
570	3/4/1978	21:00:00	2.412	0.055
571	3/10/1975	14:00:00	2.398	0.052
572	1/17/1978	1:00:00	2.394	0.051
573	2/19/1980	17:00:00	2.391	0.051
574	3/1/1991	4:00:00	2.386	0.050
575	11/24/1978	12:00:00	2.382	0.049
576	12/29/1991	17:00:00	2.375	0.047
577	1/15/1978	5:00:00	2.374	0.047
578	3/1/1991	3:00:00	2.370	0.046
579	2/2/1983	16:00:00	2.365	0.045
580	1/17/1978	0:00:00	2.358	0.044
581	1/5/1974	11:00:00	2.340	0.041
582	12/16/1987	17:00:00	2.337	0.040
583	3/1/1976	20:00:00	2.334	0.040
584	4/2/1974	5:00:00	2.332	0.039
585	3/6/1980	6:00:00	2.323	0.038
586	3/1/1981	13:00:00	2.321	0.037
587	2/15/1986	8:00:00	2.299	0.033
588	2/19/1993	21:00:00	2.289	0.032
589	12/26/1977	16:00:00	2.286	0.031
590	1/5/1974	10:00:00	2.284	0.031
591	2/27/1991	22:00:00	2.274	0.029
592	2/11/1978	15:00:00	2.269	0.028
593	3/25/1994	2:00:00	2.265	0.028
594	3/11/1975	0:00:00	2.259	0.027
595	3/5/1981	19:00:00	2.258	0.027
596	1/18/1979	19:00:00	2.234	0.023
597	12/26/1977	14:00:00	2.228	0.022
598	1/6/1992	0:00:00	2.223	0.021
599	3/10/1975	22:00:00	2.221	0.021
600	12/16/1987	15:00:00	2.221	0.021
601	12/19/1987	17:00:00	2.218	0.020

602	2/15/1986	7:00:00	2.463	0.0654
603	2/7/1978	20:00:00	2.453	0.0632
604	2/7/1978	21:00:00	2.443	0.0611
605	3/10/1975	20:00:00	2.441	0.0607
606	2/21/1980	3:00:00	2.440	0.0605
607	1/29/1980	21:00:00	2.437	0.0599
608	11/24/1978	15:00:00	2.434	0.0592
609	2/12/2003	16:00:00	2.425	0.0574
610	2/18/1980	2:00:00	2.413	0.0549
611	1/7/2005	15:00:00	2.411	0.0545
612	1/1/1977	15:00:00	2.391	0.0505
613	3/2/1978	11:00:00	2.391	0.0505
614	12/26/1977	12:00:00	2.387	0.0497
615	2/27/1983	20:00:00	2.380	0.0483
616	1/19/1980	4:00:00	2.379	0.0482
617	3/1/1981	8:00:00	2.378	0.0480
618	2/18/1980	1:00:00	2.367	0.0458
619	3/4/1978	20:00:00	2.348	0.0422
620	2/20/1980	0:00:00	2.341	0.0409
621	1/5/1974	3:00:00	2.338	0.0404
622	3/3/1983	7:00:00	2.337	0.0402
623	1/31/1979	15:00:00	2.336	0.0400
624	1/11/2001	10:00:00	2.335	0.0398
625	2/7/1998	19:00:00	2.330	0.0389
626	11/25/1985	8:00:00	2.329	0.0387
627	3/2/1992	16:00:00	2.325	0.0380
628	3/24/1983	22:00:00	2.321	0.0373
629	1/18/1993	7:00:00	2.321	0.0373
630	2/12/2005	3:00:00	2.316	0.0364
631	3/1/1981	7:00:00	2.312	0.0357
632	1/11/1980	10:00:00	2.311	0.0355
633	2/7/1998	14:00:00	2.310	0.0353
634	1/15/1978	0:00:00	2.304	0.0343
635	3/25/1994	1:00:00	2.301	0.0337
636	4/18/1995	15:00:00	2.301	0.0337
637	10/29/1974	6:00:00	2.292	0.0322
638	1/11/1980	11:00:00	2.290	0.0318
639	1/11/1980	8:00:00	2.289	0.0317
640	3/3/1983	4:00:00	2.282	0.0305
641	3/2/1983	6:00:00	2.276	0.0295
642	11/12/2003	10:00:00	2.272	0.0288
643	12/19/1978	0:00:00	2.271	0.0287
644	2/22/2005	19:00:00	2.268	0.0282
645	1/18/1979	9:00:00	2.265	0.0277
646	2/8/1976	23:00:00	2.262	0.0272
647	3/1/1981	6:00:00	2.261	0.0270
648	3/8/1974	11:00:00	2.253	0.0257
649	2/28/1991	17:00:00	2.253	0.0257
650	3/11/1995	6:00:00	2.246	0.0246
651	10/19/2004	15:00:00	2.244	0.0243
652	1/12/1995	9:00:00	2.243	0.0242

602	2/15/1986	7:00:00	2.216	0.020
603	2/7/1978	20:00:00	2.207	0.019
604	2/7/1978	21:00:00	2.198	0.017
605	3/10/1975	20:00:00	2.196	0.017
606	2/21/1980	3:00:00	2.196	0.017
607	1/29/1980	21:00:00	2.193	0.017
608	11/24/1978	15:00:00	2.190	0.016
609	2/12/2003	16:00:00	2.182	0.015
610	2/18/1980	2:00:00	2.171	0.014
611	1/7/2005	15:00:00	2.169	0.014
612	3/2/1978	11:00:00	2.152	0.011
613	1/1/1977	15:00:00	2.151	0.011
614	12/26/1977	12:00:00	2.147	0.011
615	1/19/1980	4:00:00	2.141	0.010
616	2/27/1983	20:00:00	2.141	0.010
617	3/1/1981	8:00:00	2.139	0.010
618	2/18/1980	1:00:00	2.130	0.009
619	3/4/1978	20:00:00	2.113	0.007
620	2/20/1980	0:00:00	2.106	0.006
621	1/5/1974	3:00:00	2.104	0.006
622	3/3/1983	7:00:00	2.103	0.006
623	1/31/1979	15:00:00	2.102	0.006
624	1/11/2001	10:00:00	2.100	0.006
625	2/7/1998	19:00:00	2.096	0.005
626	11/25/1985	8:00:00	2.095	0.005
627	3/2/1992	16:00:00	2.092	0.005
628	3/24/1983	22:00:00	2.088	0.005
629	1/18/1993	7:00:00	2.088	0.005
630	2/12/2005	3:00:00	2.083	0.004
631	3/1/1981	7:00:00	2.080	0.004
632	1/11/1980	10:00:00	2.079	0.004
633	2/7/1998	14:00:00	2.078	0.004
634	1/15/1978	0:00:00	2.073	0.003
635	3/25/1994	1:00:00	2.071	0.003
636	4/18/1995	15:00:00	2.070	0.003
637	10/29/1974	6:00:00	2.062	0.002
638	1/11/1980	8:00:00	2.060	0.002
639	1/11/1980	11:00:00	2.060	0.002
640	3/3/1983	4:00:00	2.054	0.002
641	3/2/1983	6:00:00	2.048	0.001
642	11/12/2003	10:00:00	2.044	0.001
643	12/19/1978	0:00:00	2.043	0.001
644	2/22/2005	19:00:00	2.041	0.001
645	1/18/1979	9:00:00	2.038	0.001
646	2/8/1976	23:00:00	2.035	0.001
647	3/1/1981	6:00:00	2.034	0.001
648	3/8/1974	11:00:00	2.027	0.000
649	2/28/1991	17:00:00	2.027	0.000
650	3/11/1995	6:00:00	2.021	0.000
651	10/19/2004	15:00:00	2.019	0.000
652	1/12/1995	9:00:00	2.018	0.000

653	1/18/1993	10:00:00	2.237	0.0232
654	1/11/2001	6:00:00	2.221	0.0208
655	1/16/1993	14:00:00	2.216	0.0201
656	2/9/1976	0:00:00	2.211	0.0193
657	3/2/1978	6:00:00	2.204	0.0183
658	11/23/1973	4:00:00	2.201	0.0179
659	1/5/2008	12:00:00	2.201	0.0179
660	3/8/1974	10:00:00	2.195	0.0171
661	2/8/1976	20:00:00	2.194	0.0169
662	2/13/1978	22:00:00	2.193	0.0168
663	3/4/1983	5:00:00	2.193	0.0168
664	3/8/1975	14:00:00	2.192	0.0166
665	12/26/1977	10:00:00	2.191	0.0165
666	1/8/1974	1:00:00	2.179	0.0149
667	3/1/1981	12:00:00	2.172	0.0139
668	1/15/1993	20:00:00	2.171	0.0138
669	1/11/2001	9:00:00	2.171	0.0138
670	3/5/1995	14:00:00	2.168	0.0134
671	1/15/1993	17:00:00	2.167	0.0133
672	1/15/1993	15:00:00	2.156	0.0119
673	2/27/1983	17:00:00	2.154	0.0117
674	1/6/1978	15:00:00	2.151	0.0113
675	2/8/1976	18:00:00	2.147	0.0108
676	1/16/1993	3:00:00	2.147	0.0108
677	12/29/2004	5:00:00	2.147	0.0108
678	1/10/2005	0:00:00	2.140	0.0100
679	1/15/1993	21:00:00	2.137	0.0096
680	1/11/1980	2:00:00	2.125	0.0083
681	1/15/1993	18:00:00	2.122	0.0079
682	3/8/1974	9:00:00	2.121	0.0078
683	2/15/1992	14:00:00	2.111	0.0068
684	1/14/1978	21:00:00	2.100	0.0057
685	11/2/1974	0:00:00	2.098	0.0055
686	2/2/1983	14:00:00	2.089	0.0046
687	1/9/2005	0:00:00	2.080	0.0038
688	1/29/1980	12:00:00	2.077	0.0036
689	1/7/1993	23:00:00	2.074	0.0033
690	1/7/1993	17:00:00	2.064	0.0026
691	1/7/1992	21:00:00	2.063	0.0025
692	1/7/1993	21:00:00	2.063	0.0025
693	4/21/1988	20:00:00	2.062	0.0024
694	3/26/1991	4:00:00	2.058	0.0021
695	1/14/1993	5:00:00	2.046	0.0013
696	11/24/1978	9:00:00	2.035	0.0007
697	2/12/1978	23:00:00	2.028	0.0004
698	1/14/1993	4:00:00	2.027	0.0004
699	10/10/1986	2:00:00	2.025	0.0003
700	2/18/2005	7:00:00	2.024	0.0003
701	3/1/1978	14:00:00	2.013	0.0000

653	1/18/1993	10:00:00	2.013	0.000
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ΣW_{POST} : 1247

ΣW_{PRE} : 1498

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	1498
(b) ΣW_{POST} :	1247
(c) S_{RUSLE} :	1.121
(d) S_{NHD} :	N/A

E_p :	0.832	[(b)/(a)]
S_p :	1.121	[(c)]

E_p / S_p :	0.7
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 4A - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		2.013 cfs		
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	42.097	99.292
2	2/20/1980	19:00:00	38.585	87.291
3	10/22/1976	17:00:00	34.075	72.507
4	10/22/1976	16:00:00	28.416	55.057
5	9/10/1976	10:00:00	27.637	52.759
6	10/31/1987	19:00:00	26.610	49.772
7	2/7/1998	17:00:00	26.536	49.558
8	2/6/1992	20:00:00	25.515	46.640
9	1/9/2005	21:00:00	25.404	46.325
10	1/29/1980	7:00:00	24.228	43.0314
11	2/19/1993	16:00:00	24.006	42.4172
12	2/2/1998	17:00:00	23.365	40.6575
13	10/20/2004	12:00:00	22.348	37.9086
14	2/13/1998	17:00:00	21.924	36.7785
15	10/27/2004	5:00:00	21.505	35.6712
16	10/18/2004	13:00:00	21.478	35.6001
17	3/6/1975	11:00:00	21.342	35.2430
18	3/1/1983	16:00:00	20.200	32.2842
19	1/31/1979	14:00:00	20.127	32.0975
20	1/9/2005	20:00:00	19.993	31.7557
21	3/2/1983	18:00:00	18.407	27.7902
22	2/15/1992	15:00:00	18.020	26.8457
23	2/21/2005	14:00:00	17.893	26.5377
24	10/10/1986	0:00:00	17.720	26.1199
25	8/17/1977	3:00:00	17.280	25.0658
26	4/18/1995	12:00:00	16.977	24.3472
27	12/4/1974	12:00:00	16.958	24.3023
28	3/3/1983	1:00:00	16.609	23.4825
29	1/18/1993	6:00:00	16.538	23.3167
30	12/28/1977	8:00:00	16.383	22.9559
31	1/13/1993	22:00:00	16.303	22.7704
32	2/20/1980	20:00:00	16.171	22.4651
33	3/4/1978	18:00:00	15.974	22.0118
34	2/18/1980	5:00:00	15.899	21.8399
35	4/23/1980	4:00:00	15.876	21.7873
36	2/15/1986	4:00:00	15.801	21.6159
37	1/31/1979	16:00:00	15.748	21.4950
38	1/31/1979	13:00:00	15.576	21.1041
39	2/16/1980	20:00:00	15.572	21.0951
40	2/12/2003	17:00:00	15.323	20.5329
41	1/31/1979	8:00:00	14.951	19.7014

Work Calculations, Post-Development Conditions				
Low flow Threshold:		2.013 cfs		
Type of flow:		10% of Q_2		
Notes:				
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	37.876	84.919
2	2/20/1980	19:00:00	34.716	74.563
3	10/22/1976	17:00:00	30.658	61.814
4	10/22/1976	16:00:00	25.566	46.784
5	9/10/1976	10:00:00	24.866	44.810
6	10/31/1987	19:00:00	23.942	42.241
7	2/7/1998	17:00:00	23.875	42.056
8	2/6/1992	20:00:00	22.956	39.546
9	1/9/2005	21:00:00	22.857	39.278
10	1/29/1980	7:00:00	21.799	36.447
11	2/19/1993	16:00:00	21.599	35.919
12	2/2/1998	17:00:00	21.022	34.407
13	10/20/2004	12:00:00	20.107	32.046
14	2/13/1998	17:00:00	19.726	31.078
15	10/27/2004	5:00:00	19.348	30.125
16	10/18/2004	13:00:00	19.324	30.065
17	3/6/1975	11:00:00	19.202	29.759
18	3/1/1983	16:00:00	18.175	27.223
19	1/31/1979	14:00:00	18.109	27.062
20	1/9/2005	20:00:00	17.988	26.768
21	3/2/1983	18:00:00	16.561	23.370
22	2/15/1992	15:00:00	16.213	22.562
23	2/21/2005	14:00:00	16.099	22.299
24	10/10/1986	0:00:00	15.943	21.941
25	8/17/1977	3:00:00	15.548	21.041
26	4/18/1995	12:00:00	15.274	20.423
27	12/4/1974	12:00:00	15.258	20.387
28	3/3/1983	1:00:00	14.944	19.686
29	1/18/1993	6:00:00	14.880	19.544
30	12/28/1977	8:00:00	14.740	19.234
31	1/13/1993	22:00:00	14.668	19.076
32	2/20/1980	20:00:00	14.549	18.814
33	3/4/1978	18:00:00	14.372	18.427
34	2/18/1980	5:00:00	14.305	18.281
35	4/23/1980	4:00:00	14.284	18.236
36	2/15/1986	4:00:00	14.216	18.088
37	1/31/1979	16:00:00	14.169	17.986
38	1/31/1979	13:00:00	14.014	17.652
39	2/16/1980	20:00:00	14.010	17.643
40	2/12/2003	17:00:00	13.787	17.166
41	1/31/1979	8:00:00	13.452	16.455

42	3/3/1983	6:00:00	14.816	19.4021
43	2/25/2003	17:00:00	14.403	18.4948
44	1/9/1980	13:00:00	14.309	18.2901
45	2/16/1998	17:00:00	13.975	17.5681
46	5/1/1978	5:00:00	13.580	16.7254
47	3/5/2005	0:00:00	13.562	16.6873
48	10/20/2004	16:00:00	13.513	16.5836
49	10/20/2004	15:00:00	13.485	16.5245
50	10/27/2004	14:00:00	13.467	16.4865
51	10/20/2004	13:00:00	13.429	16.4064
52	2/15/1986	6:00:00	12.961	15.4295
53	1/11/2005	4:00:00	12.900	15.3035
54	11/25/1985	7:00:00	12.886	15.2746
55	10/27/2004	8:00:00	12.810	15.1181
56	12/29/2004	4:00:00	12.730	14.9539
57	2/23/2005	4:00:00	12.721	14.9355
58	2/15/1986	5:00:00	12.670	14.8311
59	10/28/1974	12:00:00	12.646	14.7821
60	3/16/1986	21:00:00	12.625	14.7392
61	12/29/2004	2:00:00	12.488	14.4604
62	1/25/1995	19:00:00	12.479	14.4422
63	10/27/2004	7:00:00	12.456	14.3955
64	10/19/2004	8:00:00	12.329	14.1389
65	2/21/2005	11:00:00	12.298	14.0764
66	3/21/1983	5:00:00	12.287	14.0543
67	4/4/2006	23:00:00	12.164	13.8075
68	3/11/1995	4:00:00	12.100	13.6796
69	11/22/1996	3:00:00	12.057	13.5938
70	11/12/2003	7:00:00	12.001	13.4824
71	2/27/1978	22:00:00	11.943	13.3673
72	10/28/1974	11:00:00	11.922	13.3257
73	1/27/2008	2:00:00	11.873	13.2287
74	12/28/1977	13:00:00	11.863	13.2090
75	10/27/2004	6:00:00	11.857	13.1971
76	12/25/2003	19:00:00	11.835	13.1537
77	1/8/1998	17:00:00	11.766	13.0178
78	2/13/1978	11:00:00	11.682	12.8529
79	2/10/1978	6:00:00	11.650	12.7903
80	2/10/1978	5:00:00	11.636	12.7629
81	3/1/1981	14:00:00	11.577	12.6477
82	2/19/1980	22:00:00	11.565	12.6243
83	3/5/1995	20:00:00	11.555	12.6048
84	1/15/1978	4:00:00	11.517	12.5309
85	4/5/2006	7:00:00	11.489	12.4765
86	12/28/2004	22:00:00	11.480	12.4590
87	2/18/1980	9:00:00	11.452	12.4047
88	10/27/2004	10:00:00	11.431	12.3640
89	1/10/1978	8:00:00	11.386	12.2769
90	3/5/1995	17:00:00	11.367	12.2402
91	12/18/1988	14:00:00	11.355	12.2171
92	2/19/1980	16:00:00	11.346	12.1997

42	3/3/1983	6:00:00	13.331	16.200
43	2/25/2003	17:00:00	12.959	15.425
44	1/9/1980	13:00:00	12.874	15.250
45	2/16/1998	17:00:00	12.574	14.635
46	5/1/1978	5:00:00	12.219	13.918
47	3/5/2005	0:00:00	12.202	13.884
48	10/20/2004	16:00:00	12.158	13.795
49	10/20/2004	15:00:00	12.133	13.745
50	10/27/2004	14:00:00	12.116	13.711
51	10/20/2004	13:00:00	12.082	13.644
52	2/15/1986	6:00:00	11.661	12.812
53	1/11/2005	4:00:00	11.607	12.706
54	11/25/1985	7:00:00	11.594	12.681
55	10/27/2004	8:00:00	11.525	12.546
56	12/29/2004	4:00:00	11.454	12.409
57	2/23/2005	4:00:00	11.446	12.393
58	2/15/1986	5:00:00	11.399	12.302
59	10/28/1974	12:00:00	11.378	12.261
60	3/16/1986	21:00:00	11.359	12.225
61	12/29/2004	2:00:00	11.236	11.988
62	1/25/1995	19:00:00	11.228	11.973
63	10/27/2004	7:00:00	11.207	11.932
64	10/19/2004	8:00:00	11.093	11.715
65	2/21/2005	11:00:00	11.065	11.661
66	3/21/1983	5:00:00	11.055	11.642
67	4/4/2006	23:00:00	10.945	11.434
68	3/11/1995	4:00:00	10.887	11.324
69	11/22/1996	3:00:00	10.848	11.251
70	11/12/2003	7:00:00	10.798	11.157
71	2/27/1978	22:00:00	10.746	11.059
72	10/28/1974	11:00:00	10.727	11.024
73	1/27/2008	2:00:00	10.682	10.939
74	12/28/1977	13:00:00	10.673	10.923
75	10/27/2004	6:00:00	10.669	10.915
76	12/25/2003	19:00:00	10.648	10.876
77	1/8/1998	17:00:00	10.586	10.761
78	2/13/1978	11:00:00	10.511	10.622
79	2/10/1978	6:00:00	10.482	10.568
80	2/10/1978	5:00:00	10.470	10.546
81	3/1/1981	14:00:00	10.416	10.446
82	2/19/1980	22:00:00	10.405	10.426
83	3/5/1995	20:00:00	10.397	10.411
84	1/15/1978	4:00:00	10.362	10.347
85	4/5/2006	7:00:00	10.337	10.301
86	12/28/2004	22:00:00	10.329	10.287
87	2/18/1980	9:00:00	10.304	10.241
88	10/27/2004	10:00:00	10.285	10.206
89	1/10/1978	8:00:00	10.245	10.133
90	3/5/1995	17:00:00	10.227	10.100
91	12/18/1988	14:00:00	10.217	10.082
92	2/19/1980	16:00:00	10.208	10.066

93	1/29/1980	20:00:00	11.320	12.1496
94	2/15/1986	3:00:00	11.317	12.1438
95	1/11/1980	13:00:00	11.294	12.0995
96	2/27/1983	19:00:00	11.287	12.0861
97	3/1/1983	17:00:00	11.235	11.9862
98	3/2/1983	19:00:00	11.234	11.9843
99	3/2/1983	17:00:00	11.229	11.9747
100	1/29/1980	18:00:00	11.219	11.9555
101	3/27/1998	17:00:00	11.218	11.9536
102	2/9/1976	1:00:00	11.186	11.8923
103	2/8/1976	22:00:00	11.149	11.8215
104	3/11/2006	1:00:00	11.130	11.7852
105	2/8/1976	21:00:00	11.127	11.7795
106	1/11/2005	5:00:00	11.113	11.7528
107	1/11/1980	7:00:00	11.112	11.7509
108	12/23/1982	1:00:00	11.084	11.6975
109	3/6/1980	5:00:00	11.053	11.6385
110	2/26/1983	15:00:00	11.043	11.6195
111	1/31/1979	12:00:00	11.007	11.5511
112	2/16/1980	19:00:00	10.999	11.5360
113	11/12/2003	6:00:00	10.986	11.5113
114	1/14/1978	20:00:00	10.826	11.2093
115	12/18/1978	18:00:00	10.750	11.0666
116	2/11/2005	16:00:00	10.738	11.0442
117	2/21/2005	13:00:00	10.702	10.9768
118	3/2/1992	15:00:00	10.675	10.9264
119	2/7/1976	4:00:00	10.579	10.7478
120	12/7/1992	17:00:00	10.551	10.6958
121	2/1/1996	2:00:00	10.523	10.6439
122	10/14/2006	0:00:00	10.479	10.5626
123	1/12/1997	17:00:00	10.477	10.5589
124	2/28/1978	20:00:00	10.374	10.3692
125	3/16/1986	11:00:00	10.315	10.2610
126	11/11/1985	11:00:00	10.268	10.1751
127	2/14/1980	17:00:00	10.248	10.1386
128	2/28/2006	0:00:00	10.241	10.1258
129	1/12/2001	12:00:00	10.218	10.0839
130	12/4/1987	22:00:00	10.181	10.0166
131	1/7/2008	1:00:00	9.987	9.6659
132	12/25/1988	1:00:00	9.981	9.6552
133	11/20/1983	12:00:00	9.960	9.6174
134	12/28/2004	19:00:00	9.900	9.5099
135	10/20/2004	14:00:00	9.872	9.4599
136	2/9/1981	2:00:00	9.864	9.4456
137	11/30/2007	23:00:00	9.831	9.3867
138	1/10/1995	20:00:00	9.821	9.3689
139	1/31/1979	6:00:00	9.759	9.2587
140	2/19/2007	13:00:00	9.718	9.1861
141	3/13/1996	9:00:00	9.708	9.1684
142	1/16/1979	2:00:00	9.702	9.1578
143	3/5/1995	18:00:00	9.646	9.0589

93	1/29/1980	20:00:00	10.185	10.024
94	2/15/1986	3:00:00	10.183	10.020
95	1/11/1980	13:00:00	10.161	9.980
96	2/27/1983	19:00:00	10.155	9.969
97	3/1/1983	17:00:00	10.108	9.884
98	3/2/1983	19:00:00	10.108	9.884
99	3/2/1983	17:00:00	10.103	9.875
100	1/29/1980	18:00:00	10.094	9.859
101	3/27/1998	17:00:00	10.093	9.857
102	2/9/1976	1:00:00	10.064	9.805
103	2/8/1976	22:00:00	10.031	9.745
104	3/11/2006	1:00:00	10.014	9.715
105	2/8/1976	21:00:00	10.011	9.709
106	1/11/1980	7:00:00	9.998	9.686
107	1/11/2005	5:00:00	9.998	9.686
108	12/23/1982	1:00:00	9.972	9.639
109	3/6/1980	5:00:00	9.944	9.589
110	2/26/1983	15:00:00	9.936	9.574
111	1/31/1979	12:00:00	9.903	9.515
112	2/16/1980	19:00:00	9.896	9.503
113	11/12/2003	6:00:00	9.884	9.481
114	1/14/1978	20:00:00	9.741	9.227
115	12/18/1978	18:00:00	9.672	9.105
116	2/11/2005	16:00:00	9.661	9.085
117	2/21/2005	13:00:00	9.629	9.029
118	3/2/1992	15:00:00	9.605	8.987
119	2/7/1976	4:00:00	9.518	8.834
120	12/7/1992	17:00:00	9.493	8.790
121	2/1/1996	2:00:00	9.468	8.747
122	10/14/2006	0:00:00	9.428	8.677
123	1/12/1997	17:00:00	9.427	8.675
124	2/28/1978	20:00:00	9.334	8.514
125	3/16/1986	11:00:00	9.281	8.423
126	11/11/1985	11:00:00	9.239	8.350
127	2/14/1980	17:00:00	9.220	8.318
128	2/28/2006	0:00:00	9.214	8.307
129	1/12/2001	12:00:00	9.194	8.273
130	12/4/1987	22:00:00	9.160	8.215
131	1/7/2008	1:00:00	8.985	7.917
132	12/25/1988	1:00:00	8.980	7.909
133	11/20/1983	12:00:00	8.962	7.878
134	12/28/2004	19:00:00	8.907	7.786
135	10/20/2004	14:00:00	8.882	7.744
136	2/9/1981	2:00:00	8.875	7.732
137	11/30/2007	23:00:00	8.845	7.682
138	1/10/1995	20:00:00	8.836	7.667
139	1/31/1979	6:00:00	8.781	7.575
140	2/19/2007	13:00:00	8.743	7.511
141	3/13/1996	9:00:00	8.734	7.496
142	1/16/1979	2:00:00	8.730	7.490
143	3/5/1995	18:00:00	8.679	7.405

144	3/6/1980	10:00:00	9.567	8.9200
145	2/27/1983	18:00:00	9.486	8.7783
146	10/27/2004	9:00:00	9.464	8.7399
147	2/14/2001	17:00:00	9.449	8.7137
148	10/10/1986	4:00:00	9.441	8.6998
149	2/8/1994	7:00:00	9.381	8.5956
150	4/15/1976	21:00:00	9.291	8.4399
151	1/17/1990	3:00:00	9.229	8.3332
152	1/6/2008	7:00:00	9.224	8.3246
153	1/18/1993	14:00:00	9.200	8.2834
154	3/18/1983	23:00:00	9.135	8.1722
155	1/9/2005	5:00:00	9.111	8.1312
156	2/5/1978	15:00:00	9.105	8.1210
157	1/4/2005	4:00:00	9.083	8.0835
158	2/23/2004	17:00:00	8.995	7.9342
159	2/14/1995	11:00:00	8.940	7.8413
160	12/25/1988	0:00:00	8.911	7.7925
161	2/21/2005	12:00:00	8.895	7.7655
162	11/11/1978	22:00:00	8.679	7.4051
163	3/5/2005	1:00:00	8.635	7.3323
164	3/15/1986	23:00:00	8.616	7.3010
165	4/28/2005	23:00:00	8.616	7.3010
166	2/13/1992	6:00:00	8.610	7.2911
167	10/28/1974	13:00:00	8.609	7.2894
168	12/18/1984	18:00:00	8.600	7.2746
169	12/7/1992	14:00:00	8.542	7.1793
170	11/25/1985	1:00:00	8.529	7.1579
171	2/8/1983	6:00:00	8.527	7.1547
172	1/29/1983	1:00:00	8.522	7.1465
173	9/10/1976	9:00:00	8.516	7.1366
174	3/24/1998	17:00:00	8.384	6.9215
175	1/27/1983	11:00:00	8.315	6.8099
176	1/4/1974	20:00:00	8.187	6.6043
177	3/1/1991	9:00:00	8.174	6.5835
178	3/1/1991	7:00:00	8.119	6.4959
179	2/14/1995	10:00:00	8.104	6.4720
180	5/9/1977	0:00:00	8.053	6.3912
181	2/19/1993	17:00:00	7.978	6.2729
182	11/25/1983	0:00:00	7.966	6.2540
183	4/20/1988	9:00:00	7.937	6.2085
184	2/5/1976	2:00:00	7.932	6.2007
185	3/5/1995	19:00:00	7.915	6.1740
186	3/11/2006	3:00:00	7.870	6.1037
187	3/19/1981	23:00:00	7.813	6.0151
188	3/22/2005	23:00:00	7.765	5.9407
189	11/20/1983	11:00:00	7.711	5.8574
190	4/5/2006	2:00:00	7.711	5.8574
191	3/5/1995	16:00:00	7.698	5.8374
192	12/18/1984	16:00:00	7.682	5.8128
193	10/19/2004	16:00:00	7.656	5.7729
194	2/19/2007	12:00:00	7.619	5.7163

144	3/6/1980	10:00:00	8.607	7.286
145	2/27/1983	18:00:00	8.535	7.168
146	10/27/2004	9:00:00	8.515	7.135
147	2/14/2001	17:00:00	8.502	7.114
148	10/10/1986	4:00:00	8.495	7.102
149	2/8/1994	7:00:00	8.440	7.013
150	4/15/1976	21:00:00	8.360	6.883
151	1/17/1990	3:00:00	8.304	6.792
152	1/6/2008	7:00:00	8.299	6.784
153	1/18/1993	14:00:00	8.277	6.749
154	3/18/1983	23:00:00	8.219	6.656
155	1/9/2005	5:00:00	8.198	6.622
156	2/5/1978	15:00:00	8.192	6.612
157	1/4/2005	4:00:00	8.172	6.580
158	2/23/2004	17:00:00	8.093	6.455
159	2/14/1995	11:00:00	8.043	6.375
160	12/25/1988	0:00:00	8.018	6.336
161	2/21/2005	12:00:00	8.003	6.312
162	11/11/1978	22:00:00	7.809	6.009
163	3/5/2005	1:00:00	7.769	5.947
164	3/15/1986	23:00:00	7.752	5.921
165	4/28/2005	23:00:00	7.752	5.921
166	2/13/1992	6:00:00	7.747	5.913
167	10/28/1974	13:00:00	7.746	5.911
168	12/18/1984	18:00:00	7.738	5.899
169	12/7/1992	14:00:00	7.685	5.817
170	11/25/1985	1:00:00	7.674	5.801
171	2/8/1983	6:00:00	7.672	5.797
172	1/29/1983	1:00:00	7.667	5.790
173	9/10/1976	9:00:00	7.662	5.782
174	3/24/1998	17:00:00	7.544	5.602
175	1/27/1983	11:00:00	7.481	5.507
176	1/4/1974	20:00:00	7.366	5.334
177	3/1/1991	9:00:00	7.355	5.318
178	3/1/1991	7:00:00	7.305	5.243
179	2/14/1995	10:00:00	7.291	5.222
180	5/9/1977	0:00:00	7.245	5.154
181	2/19/1993	17:00:00	7.178	5.055
182	11/25/1983	0:00:00	7.167	5.039
183	4/20/1988	9:00:00	7.141	5.001
184	2/5/1976	2:00:00	7.137	4.995
185	3/5/1995	19:00:00	7.122	4.973
186	3/11/2006	3:00:00	7.081	4.913
187	3/19/1981	23:00:00	7.029	4.838
188	3/22/2005	23:00:00	6.987	4.777
189	11/20/1983	11:00:00	6.938	4.707
190	4/5/2006	2:00:00	6.938	4.707
191	3/5/1995	16:00:00	6.926	4.689
192	12/18/1984	16:00:00	6.912	4.669
193	10/19/2004	16:00:00	6.889	4.636
194	2/19/2007	12:00:00	6.855	4.588

195	2/27/1983	6:00:00	7.604	5.6934
196	9/25/1986	6:00:00	7.599	5.6858
197	1/16/1993	11:00:00	7.568	5.6385
198	1/16/1993	10:00:00	7.565	5.6340
199	12/17/2002	17:00:00	7.563	5.6309
200	1/16/1993	9:00:00	7.550	5.6112
201	11/8/2004	1:00:00	7.549	5.6097
202	12/9/1996	19:00:00	7.529	5.5793
203	1/11/2005	8:00:00	7.528	5.5778
204	1/11/2005	3:00:00	7.515	5.5581
205	2/23/1998	17:00:00	7.506	5.5445
206	2/26/2004	17:00:00	7.506	5.5445
207	1/15/1993	16:00:00	7.481	5.5067
208	1/15/1993	14:00:00	7.473	5.4946
209	12/27/1984	19:00:00	7.471	5.4916
210	1/8/1993	0:00:00	7.426	5.4239
211	3/2/1992	17:00:00	7.416	5.4089
212	3/11/1975	14:00:00	7.392	5.3729
213	1/8/1974	3:00:00	7.374	5.3459
214	2/13/1978	13:00:00	7.360	5.3250
215	12/29/1976	14:00:00	7.353	5.3145
216	2/13/1978	0:00:00	7.349	5.3086
217	11/12/2003	9:00:00	7.335	5.2877
218	2/8/1983	7:00:00	7.324	5.2713
219	1/7/1974	18:00:00	7.320	5.2654
220	3/5/1978	8:00:00	7.314	5.2564
221	2/23/2005	1:00:00	7.286	5.2148
222	1/7/1993	4:00:00	7.270	5.1911
223	1/7/1993	3:00:00	7.250	5.1615
224	1/17/1978	3:00:00	7.241	5.1482
225	3/12/1978	2:00:00	7.226	5.1260
226	1/11/2001	8:00:00	7.212	5.1054
227	1/7/1993	0:00:00	7.201	5.0892
228	3/12/1978	1:00:00	7.200	5.0877
229	1/28/1980	22:00:00	7.176	5.0524
230	3/12/1978	0:00:00	7.169	5.0421
231	11/24/1978	13:00:00	7.167	5.0392
232	2/21/1980	5:00:00	7.165	5.0362
233	12/4/1974	11:00:00	7.140	4.9996
234	2/21/1980	1:00:00	7.119	4.9689
235	1/15/1978	6:00:00	7.093	4.9309
236	2/20/1980	18:00:00	7.063	4.8873
237	2/1/1996	4:00:00	7.054	4.8742
238	2/10/1978	4:00:00	7.005	4.8032
239	1/15/1978	3:00:00	6.993	4.7858
240	1/6/1979	3:00:00	6.974	4.7584
241	3/11/1986	2:00:00	6.955	4.7311
242	2/18/1980	6:00:00	6.953	4.7282
243	1/15/1978	2:00:00	6.946	4.7181
244	11/25/1985	4:00:00	6.926	4.6894
245	1/14/1990	4:00:00	6.907	4.6622

195	2/27/1983	6:00:00	6.842	4.569
196	9/25/1986	6:00:00	6.837	4.562
197	1/16/1993	11:00:00	6.809	4.523
198	1/16/1993	10:00:00	6.806	4.518
199	12/17/2002	17:00:00	6.804	4.515
200	1/16/1993	9:00:00	6.793	4.500
201	11/8/2004	1:00:00	6.792	4.498
202	12/9/1996	19:00:00	6.774	4.473
203	1/11/2005	8:00:00	6.773	4.472
204	1/11/2005	3:00:00	6.761	4.455
205	2/23/1998	17:00:00	6.754	4.445
206	2/26/2004	17:00:00	6.754	4.445
207	1/15/1993	16:00:00	6.731	4.412
208	1/15/1993	14:00:00	6.724	4.402
209	12/27/1984	19:00:00	6.721	4.398
210	1/8/1993	0:00:00	6.681	4.342
211	3/2/1992	17:00:00	6.672	4.330
212	3/11/1975	14:00:00	6.651	4.300
213	1/8/1974	3:00:00	6.634	4.277
214	2/13/1978	13:00:00	6.622	4.260
215	12/29/1976	14:00:00	6.615	4.250
216	2/13/1978	0:00:00	6.612	4.246
217	11/12/2003	9:00:00	6.600	4.229
218	2/8/1983	7:00:00	6.589	4.214
219	1/7/1974	18:00:00	6.586	4.210
220	3/5/1978	8:00:00	6.581	4.203
221	2/23/2005	1:00:00	6.555	4.167
222	1/7/1993	4:00:00	6.541	4.148
223	1/7/1993	3:00:00	6.523	4.123
224	1/17/1978	3:00:00	6.515	4.112
225	3/12/1978	2:00:00	6.501	4.093
226	1/11/2001	8:00:00	6.489	4.076
227	1/7/1993	0:00:00	6.479	4.062
228	3/12/1978	1:00:00	6.478	4.061
229	1/28/1980	22:00:00	6.456	4.031
230	3/12/1978	0:00:00	6.450	4.023
231	11/24/1978	13:00:00	6.448	4.020
232	2/21/1980	5:00:00	6.447	4.019
233	12/4/1974	11:00:00	6.424	3.987
234	2/21/1980	1:00:00	6.405	3.961
235	1/15/1978	6:00:00	6.381	3.929
236	2/20/1980	18:00:00	6.355	3.894
237	2/1/1996	4:00:00	6.347	3.883
238	2/10/1978	4:00:00	6.302	3.822
239	1/15/1978	3:00:00	6.292	3.809
240	1/6/1979	3:00:00	6.275	3.786
241	3/11/1986	2:00:00	6.257	3.762
242	2/18/1980	6:00:00	6.256	3.761
243	1/15/1978	2:00:00	6.249	3.751
244	11/25/1985	4:00:00	6.232	3.729
245	1/14/1990	4:00:00	6.214	3.705

246	2/22/1998	17:00:00	6.907	4.6622
247	1/15/1978	1:00:00	6.881	4.6250
248	2/7/1978	19:00:00	6.866	4.6036
249	3/24/1983	4:00:00	6.864	4.6007
250	3/5/1978	5:00:00	6.861	4.5965
251	2/18/1980	4:00:00	6.823	4.5424
252	3/16/1986	17:00:00	6.823	4.5424
253	1/29/1980	19:00:00	6.819	4.5367
254	1/29/1980	23:00:00	6.803	4.5140
255	1/11/1980	12:00:00	6.783	4.4857
256	1/4/1987	19:00:00	6.775	4.4744
257	1/16/1978	23:00:00	6.770	4.4673
258	1/27/1983	13:00:00	6.753	4.4433
259	12/19/1978	9:00:00	6.749	4.4377
260	1/31/1996	22:00:00	6.737	4.4208
261	1/28/2005	17:00:00	6.728	4.4081
262	1/11/1980	9:00:00	6.721	4.3983
263	1/18/1979	18:00:00	6.709	4.3814
264	1/5/1974	2:00:00	6.702	4.3716
265	4/20/1983	12:00:00	6.702	4.3716
266	3/2/1978	10:00:00	6.691	4.3562
267	3/2/1981	2:00:00	6.688	4.3520
268	11/24/1978	7:00:00	6.687	4.3506
269	2/9/1976	3:00:00	6.650	4.2988
270	12/3/1983	17:00:00	6.637	4.2807
271	1/7/1993	16:00:00	6.628	4.2682
272	1/29/1980	13:00:00	6.624	4.2626
273	3/5/1978	16:00:00	6.618	4.2543
274	2/8/1976	19:00:00	6.605	4.2362
275	1/5/1974	1:00:00	6.600	4.2293
276	12/7/1992	13:00:00	6.596	4.2237
277	3/11/2006	13:00:00	6.560	4.1739
278	4/20/1983	11:00:00	6.559	4.1725
279	1/3/2005	10:00:00	6.556	4.1683
280	2/11/1978	12:00:00	6.548	4.1573
281	11/4/1987	23:00:00	6.538	4.1435
282	1/19/1980	3:00:00	6.501	4.0926
283	1/11/1980	1:00:00	6.480	4.0638
284	1/5/1974	0:00:00	6.468	4.0473
285	2/8/1994	8:00:00	6.461	4.0378
286	2/19/2007	16:00:00	6.456	4.0309
287	12/18/1978	23:00:00	6.433	3.9995
288	2/12/2005	16:00:00	6.432	3.9982
289	3/1/1978	11:00:00	6.427	3.9913
290	12/20/2002	17:00:00	6.423	3.9859
291	2/7/1976	5:00:00	6.412	3.9709
292	3/1/1991	10:00:00	6.410	3.9682
293	3/1/1978	9:00:00	6.365	3.9072
294	3/1/1991	8:00:00	6.360	3.9004
295	2/7/1998	16:00:00	6.349	3.8855
296	1/29/1980	9:00:00	6.335	3.8666

246	2/22/1998	17:00:00	6.214	3.705
247	1/15/1978	1:00:00	6.191	3.674
248	2/7/1978	19:00:00	6.178	3.657
249	3/24/1983	4:00:00	6.175	3.653
250	3/5/1978	5:00:00	6.173	3.650
251	2/18/1980	4:00:00	6.139	3.605
252	3/16/1986	17:00:00	6.139	3.605
253	1/29/1980	19:00:00	6.135	3.600
254	1/29/1980	23:00:00	6.121	3.582
255	1/11/1980	12:00:00	6.103	3.558
256	1/4/1987	19:00:00	6.096	3.549
257	1/16/1978	23:00:00	6.091	3.542
258	1/27/1983	13:00:00	6.076	3.523
259	12/19/1978	9:00:00	6.072	3.517
260	1/31/1996	22:00:00	6.062	3.504
261	1/28/2005	17:00:00	6.053	3.492
262	1/11/1980	9:00:00	6.047	3.485
263	1/18/1979	18:00:00	6.036	3.470
264	1/5/1974	2:00:00	6.030	3.463
265	4/20/1983	12:00:00	6.030	3.463
266	3/2/1978	10:00:00	6.020	3.449
267	3/2/1981	2:00:00	6.018	3.447
268	11/24/1978	7:00:00	6.016	3.444
269	2/9/1976	3:00:00	5.983	3.402
270	12/3/1983	17:00:00	5.971	3.386
271	1/7/1993	16:00:00	5.963	3.376
272	1/29/1980	13:00:00	5.960	3.372
273	3/5/1978	16:00:00	5.954	3.364
274	2/8/1976	19:00:00	5.943	3.350
275	1/5/1974	1:00:00	5.938	3.343
276	12/7/1992	13:00:00	5.935	3.340
277	3/11/2006	13:00:00	5.902	3.297
278	4/20/1983	11:00:00	5.901	3.296
279	1/3/2005	10:00:00	5.898	3.292
280	2/11/1978	12:00:00	5.891	3.283
281	11/4/1987	23:00:00	5.883	3.273
282	1/19/1980	3:00:00	5.849	3.230
283	1/11/1980	1:00:00	5.831	3.207
284	1/5/1974	0:00:00	5.819	3.192
285	2/8/1994	8:00:00	5.813	3.184
286	2/19/2007	16:00:00	5.809	3.179
287	12/18/1978	23:00:00	5.788	3.152
288	2/12/2005	16:00:00	5.787	3.151
289	3/1/1978	11:00:00	5.782	3.145
290	12/20/2002	17:00:00	5.779	3.141
291	2/7/1976	5:00:00	5.769	3.128
292	3/1/1991	10:00:00	5.768	3.127
293	3/1/1978	9:00:00	5.727	3.076
294	3/1/1991	8:00:00	5.723	3.071
295	2/7/1998	16:00:00	5.712	3.057
296	1/29/1980	9:00:00	5.700	3.042

297	3/1/1978	8:00:00	6.324	3.8518
298	1/31/1979	10:00:00	6.319	3.8451
299	3/11/1978	23:00:00	6.315	3.8397
300	1/11/2005	2:00:00	6.315	3.8397
301	3/1/1978	7:00:00	6.278	3.7900
302	3/5/1995	22:00:00	6.275	3.7860
303	1/4/1974	23:00:00	6.274	3.7847
304	2/8/1993	21:00:00	6.272	3.7820
305	3/24/1994	23:00:00	6.270	3.7793
306	2/12/2005	8:00:00	6.252	3.7552
307	1/6/1992	12:00:00	6.243	3.7432
308	3/5/1995	21:00:00	6.236	3.7339
309	2/22/2008	7:00:00	6.222	3.7152
310	11/23/1973	3:00:00	6.219	3.7112
311	12/5/2004	15:00:00	6.201	3.6873
312	1/31/1979	9:00:00	6.186	3.6674
313	2/27/1996	23:00:00	6.180	3.6595
314	11/23/1973	0:00:00	6.134	3.5987
315	1/29/1980	5:00:00	6.116	3.5750
316	1/12/1993	16:00:00	6.069	3.5134
317	2/6/1976	7:00:00	6.062	3.5042
318	3/11/1995	7:00:00	6.056	3.4964
319	3/10/1980	18:00:00	6.000	3.4235
320	1/13/1993	21:00:00	5.992	3.4132
321	1/29/1980	4:00:00	5.983	3.4015
322	3/28/1979	21:00:00	5.969	3.3834
323	4/7/1978	5:00:00	5.912	3.3101
324	11/4/1987	19:00:00	5.875	3.2627
325	1/12/1993	19:00:00	5.860	3.2436
326	2/5/1978	18:00:00	5.825	3.1991
327	3/2/1983	16:00:00	5.817	3.1890
328	4/14/1998	17:00:00	5.785	3.1485
329	1/5/1978	22:00:00	5.783	3.1460
330	3/1/1978	6:00:00	5.747	3.1007
331	10/19/2004	18:00:00	5.743	3.0957
332	12/29/2004	6:00:00	5.732	3.0819
333	2/20/1980	5:00:00	5.728	3.0769
334	4/2/1974	6:00:00	5.721	3.0681
335	1/31/1979	7:00:00	5.717	3.0631
336	1/15/1993	19:00:00	5.702	3.0444
337	11/24/1978	3:00:00	5.697	3.0382
338	1/29/1980	2:00:00	5.655	2.9859
339	1/9/2005	23:00:00	5.627	2.9513
340	3/5/1995	13:00:00	5.602	2.9205
341	12/17/1978	23:00:00	5.595	2.9118
342	1/4/1974	21:00:00	5.578	2.8910
343	2/11/2003	17:00:00	5.567	2.8775
344	3/16/1986	22:00:00	5.540	2.8445
345	1/9/1978	19:00:00	5.539	2.8433
346	3/1/1983	15:00:00	5.520	2.8201
347	2/22/2005	22:00:00	5.514	2.8128

297	3/1/1978	8:00:00	5.690	3.029
298	1/31/1979	10:00:00	5.686	3.024
299	3/11/1978	23:00:00	5.681	3.018
300	1/11/2005	2:00:00	5.681	3.018
301	3/1/1978	7:00:00	5.649	2.979
302	1/4/1974	23:00:00	5.645	2.974
303	3/5/1995	22:00:00	5.645	2.974
304	2/8/1993	21:00:00	5.643	2.971
305	3/24/1994	23:00:00	5.641	2.969
306	2/12/2005	8:00:00	5.625	2.949
307	1/6/1992	12:00:00	5.617	2.939
308	3/5/1995	21:00:00	5.611	2.932
309	2/22/2008	7:00:00	5.598	2.916
310	11/23/1973	3:00:00	5.595	2.912
311	12/5/2004	15:00:00	5.579	2.892
312	1/31/1979	9:00:00	5.566	2.876
313	2/27/1996	23:00:00	5.560	2.869
314	11/23/1973	0:00:00	5.519	2.819
315	1/29/1980	5:00:00	5.503	2.799
316	1/12/1993	16:00:00	5.461	2.749
317	2/6/1976	7:00:00	5.454	2.740
318	3/11/1995	7:00:00	5.449	2.734
319	3/10/1980	18:00:00	5.398	2.673
320	1/13/1993	21:00:00	5.391	2.665
321	1/29/1980	4:00:00	5.383	2.655
322	3/28/1979	21:00:00	5.370	2.640
323	4/7/1978	5:00:00	5.319	2.579
324	11/4/1987	19:00:00	5.285	2.539
325	1/12/1993	19:00:00	5.272	2.524
326	2/5/1978	18:00:00	5.241	2.487
327	3/2/1983	16:00:00	5.234	2.479
328	4/14/1998	17:00:00	5.205	2.445
329	1/5/1978	22:00:00	5.203	2.443
330	3/1/1978	6:00:00	5.171	2.406
331	10/19/2004	18:00:00	5.167	2.402
332	12/29/2004	6:00:00	5.158	2.391
333	2/20/1980	5:00:00	5.154	2.387
334	4/2/1974	6:00:00	5.148	2.380
335	1/31/1979	7:00:00	5.144	2.375
336	1/15/1993	19:00:00	5.130	2.359
337	11/24/1978	3:00:00	5.126	2.354
338	1/29/1980	2:00:00	5.088	2.311
339	1/9/2005	23:00:00	5.063	2.282
340	3/5/1995	13:00:00	5.040	2.256
341	12/17/1978	23:00:00	5.034	2.250
342	1/4/1974	21:00:00	5.018	2.232
343	2/11/2003	17:00:00	5.009	2.221
344	1/9/1978	19:00:00	4.984	2.193
345	3/16/1986	22:00:00	4.984	2.193
346	3/1/1983	15:00:00	4.967	2.174
347	2/22/2005	22:00:00	4.961	2.168

348	2/14/1995	12:00:00	5.498	2.7934
349	1/7/1993	8:00:00	5.497	2.7922
350	1/29/1983	2:00:00	5.495	2.7897
351	12/6/1998	7:00:00	5.483	2.7752
352	3/5/1995	12:00:00	5.447	2.7317
353	1/25/1995	23:00:00	5.426	2.7065
354	4/5/2006	1:00:00	5.380	2.6514
355	3/10/1986	21:00:00	5.371	2.6407
356	1/6/1993	22:00:00	5.358	2.6252
357	12/11/1984	11:00:00	5.350	2.6157
358	3/5/1981	18:00:00	5.307	2.5649
359	12/11/1984	10:00:00	5.301	2.5578
360	12/27/1984	4:00:00	5.242	2.4886
361	2/1/1996	3:00:00	5.237	2.4827
362	11/24/1984	22:00:00	5.236	2.4816
363	3/12/1995	0:00:00	5.221	2.4641
364	2/21/2005	7:00:00	5.193	2.4316
365	8/17/1977	1:00:00	5.187	2.4246
366	1/31/1996	21:00:00	5.163	2.3969
367	1/14/1990	5:00:00	5.156	2.3888
368	2/7/1978	18:00:00	5.152	2.3842
369	12/18/1984	19:00:00	5.126	2.3543
370	10/31/1987	18:00:00	5.099	2.3234
371	1/5/1992	16:00:00	5.075	2.2961
372	12/19/1978	7:00:00	5.072	2.2927
373	12/7/1992	15:00:00	5.065	2.2847
374	3/26/1991	3:00:00	5.058	2.2768
375	2/28/2006	2:00:00	5.035	2.2508
376	1/27/2008	3:00:00	5.007	2.2192
377	1/26/1997	3:00:00	4.995	2.2057
378	1/14/1978	19:00:00	4.973	2.1811
379	1/11/2001	7:00:00	4.942	2.1465
380	1/6/1993	14:00:00	4.926	2.1288
381	2/5/1976	17:00:00	4.917	2.1188
382	2/20/1993	7:00:00	4.904	2.1044
383	11/21/2004	8:00:00	4.887	2.0857
384	2/2/1998	16:00:00	4.886	2.0846
385	12/18/1984	17:00:00	4.881	2.0791
386	1/10/1995	21:00:00	4.877	2.0747
387	1/18/1979	8:00:00	4.806	1.9971
388	1/5/1992	15:00:00	4.781	1.9700
389	3/2/1992	10:00:00	4.737	1.9227
390	3/1/1981	5:00:00	4.715	1.8991
391	10/27/2004	15:00:00	4.706	1.8895
392	1/7/2008	3:00:00	4.700	1.8831
393	5/2/1980	0:00:00	4.693	1.8757
394	11/29/1985	15:00:00	4.674	1.8555
395	2/8/1976	17:00:00	4.669	1.8502
396	3/1/1991	11:00:00	4.643	1.8228
397	9/3/1976	17:00:00	4.604	1.7819
398	2/12/2005	11:00:00	4.583	1.7600

348	2/14/1995	12:00:00	4.947	2.152
349	1/7/1993	8:00:00	4.945	2.150
350	1/29/1983	2:00:00	4.944	2.149
351	12/6/1998	7:00:00	4.933	2.137
352	3/5/1995	12:00:00	4.901	2.101
353	1/25/1995	23:00:00	4.882	2.080
354	4/5/2006	1:00:00	4.841	2.035
355	3/10/1986	21:00:00	4.832	2.025
356	1/6/1993	22:00:00	4.820	2.012
357	12/11/1984	11:00:00	4.814	2.006
358	3/5/1981	18:00:00	4.775	1.964
359	12/11/1984	10:00:00	4.769	1.957
360	12/27/1984	4:00:00	4.716	1.900
361	2/1/1996	3:00:00	4.712	1.896
362	11/24/1984	22:00:00	4.711	1.895
363	3/12/1995	0:00:00	4.698	1.881
364	2/21/2005	7:00:00	4.672	1.853
365	8/17/1977	1:00:00	4.667	1.848
366	1/31/1996	21:00:00	4.645	1.825
367	1/14/1990	5:00:00	4.639	1.819
368	2/7/1978	18:00:00	4.636	1.815
369	12/18/1984	19:00:00	4.612	1.790
370	10/31/1987	18:00:00	4.588	1.765
371	1/5/1992	16:00:00	4.566	1.742
372	12/19/1978	7:00:00	4.563	1.739
373	12/7/1992	15:00:00	4.557	1.733
374	3/26/1991	3:00:00	4.551	1.727
375	2/28/2006	2:00:00	4.530	1.705
376	1/27/2008	3:00:00	4.505	1.679
377	1/26/1997	3:00:00	4.494	1.668
378	1/14/1978	19:00:00	4.475	1.649
379	1/11/2001	7:00:00	4.446	1.619
380	1/6/1993	14:00:00	4.432	1.605
381	2/5/1976	17:00:00	4.424	1.597
382	2/20/1993	7:00:00	4.412	1.585
383	2/2/1998	16:00:00	4.396	1.569
384	11/21/2004	8:00:00	4.396	1.569
385	12/18/1984	17:00:00	4.392	1.565
386	1/10/1995	21:00:00	4.388	1.561
387	1/18/1979	8:00:00	4.324	1.498
388	1/5/1992	15:00:00	4.301	1.475
389	3/2/1992	10:00:00	4.262	1.437
390	3/1/1981	5:00:00	4.242	1.417
391	10/27/2004	15:00:00	4.234	1.410
392	1/7/2008	3:00:00	4.229	1.405
393	5/2/1980	0:00:00	4.223	1.399
394	11/29/1985	15:00:00	4.205	1.382
395	2/8/1976	17:00:00	4.201	1.378
396	3/1/1991	11:00:00	4.177	1.355
397	9/3/1976	17:00:00	4.142	1.322
398	2/12/2005	11:00:00	4.124	1.305

399	2/5/1976	3:00:00	4.523	1.6979
400	1/7/2008	5:00:00	4.515	1.6897
401	3/1/1991	6:00:00	4.508	1.6825
402	2/15/1986	9:00:00	4.469	1.6427
403	3/1/1991	5:00:00	4.469	1.6427
404	1/7/2005	14:00:00	4.430	1.6032
405	12/17/1987	7:00:00	4.368	1.5411
406	9/25/1986	7:00:00	4.362	1.5351
407	12/11/1984	8:00:00	4.286	1.4602
408	3/6/1980	8:00:00	4.282	1.4563
409	1/27/1983	9:00:00	4.269	1.4437
410	3/8/1975	13:00:00	4.268	1.4427
411	11/25/1985	10:00:00	4.248	1.4233
412	10/19/2004	19:00:00	4.240	1.4155
413	8/17/1977	4:00:00	4.223	1.3991
414	2/28/2006	8:00:00	4.213	1.3895
415	3/1/1991	2:00:00	4.171	1.3493
416	1/6/1979	4:00:00	4.164	1.3427
417	2/2/1983	15:00:00	4.163	1.3417
418	11/25/1985	9:00:00	4.147	1.3266
419	10/20/1979	16:00:00	4.139	1.3190
420	3/6/1975	12:00:00	4.118	1.2992
421	4/29/1980	1:00:00	4.104	1.2861
422	4/20/1983	10:00:00	4.103	1.2852
423	2/7/1998	15:00:00	4.100	1.2823
424	2/13/1998	16:00:00	4.067	1.2516
425	1/10/1980	12:00:00	4.064	1.2488
426	12/4/1974	13:00:00	4.058	1.2433
427	12/30/1981	15:00:00	4.049	1.2350
428	3/2/1983	22:00:00	4.049	1.2350
429	3/3/1983	5:00:00	4.044	1.2303
430	3/3/1983	9:00:00	4.023	1.2110
431	3/5/1995	15:00:00	4.014	1.2028
432	2/28/1983	2:00:00	4.012	1.2009
433	1/16/1993	12:00:00	3.997	1.1873
434	1/16/1993	13:00:00	3.985	1.1763
435	3/3/1983	3:00:00	3.969	1.1618
436	1/11/2005	6:00:00	3.964	1.1573
437	1/11/2005	7:00:00	3.943	1.1384
438	11/1/1974	23:00:00	3.897	1.0973
439	2/12/2005	7:00:00	3.893	1.0938
440	1/10/2005	1:00:00	3.887	1.0885
441	10/19/2004	14:00:00	3.871	1.0744
442	3/12/1986	14:00:00	3.832	1.0402
443	1/7/1993	22:00:00	3.825	1.0341
444	12/25/2003	20:00:00	3.825	1.0341
445	3/12/1986	13:00:00	3.824	1.0333
446	1/9/2005	9:00:00	3.805	1.0168
447	1/13/1993	23:00:00	3.802	1.0142
448	1/12/1995	14:00:00	3.797	1.0099
449	3/6/1994	21:00:00	3.785	0.9996

399	2/5/1976	3:00:00	4.069	1.253
400	1/7/2008	5:00:00	4.062	1.247
401	3/1/1991	6:00:00	4.056	1.241
402	2/15/1986	9:00:00	4.021	1.209
403	3/1/1991	5:00:00	4.021	1.209
404	1/7/2005	14:00:00	3.986	1.177
405	12/17/1987	7:00:00	3.930	1.127
406	9/25/1986	7:00:00	3.925	1.122
407	12/11/1984	8:00:00	3.856	1.061
408	3/6/1980	8:00:00	3.852	1.058
409	1/27/1983	9:00:00	3.841	1.048
410	3/8/1975	13:00:00	3.840	1.047
411	11/25/1985	10:00:00	3.822	1.032
412	10/19/2004	19:00:00	3.815	1.025
413	8/17/1977	4:00:00	3.799	1.012
414	2/28/2006	8:00:00	3.790	1.004
415	3/1/1991	2:00:00	3.753	0.972
416	1/6/1979	4:00:00	3.747	0.967
417	2/2/1983	15:00:00	3.746	0.966
418	11/25/1985	9:00:00	3.731	0.954
419	10/20/1979	16:00:00	3.724	0.948
420	3/6/1975	12:00:00	3.705	0.932
421	4/29/1980	1:00:00	3.692	0.921
422	4/20/1983	10:00:00	3.692	0.921
423	2/7/1998	15:00:00	3.689	0.918
424	2/13/1998	16:00:00	3.659	0.893
425	1/10/1980	12:00:00	3.657	0.892
426	12/4/1974	13:00:00	3.651	0.887
427	12/30/1981	15:00:00	3.643	0.880
428	3/2/1983	22:00:00	3.643	0.880
429	3/3/1983	5:00:00	3.638	0.876
430	3/3/1983	9:00:00	3.619	0.860
431	3/5/1995	15:00:00	3.612	0.855
432	2/28/1983	2:00:00	3.609	0.852
433	1/16/1993	12:00:00	3.596	0.842
434	1/16/1993	13:00:00	3.585	0.833
435	3/3/1983	3:00:00	3.571	0.822
436	1/11/2005	6:00:00	3.567	0.818
437	1/11/2005	7:00:00	3.547	0.802
438	11/1/1974	23:00:00	3.506	0.770
439	2/12/2005	7:00:00	3.503	0.768
440	1/10/2005	1:00:00	3.497	0.763
441	10/19/2004	14:00:00	3.483	0.752
442	3/12/1986	14:00:00	3.448	0.725
443	3/12/1986	13:00:00	3.441	0.719
444	1/7/1993	22:00:00	3.441	0.719
445	12/25/2003	20:00:00	3.441	0.719
446	1/9/2005	9:00:00	3.423	0.706
447	1/13/1993	23:00:00	3.421	0.704
448	1/12/1995	14:00:00	3.417	0.701
449	3/6/1994	21:00:00	3.405	0.692

450	1/7/1993	20:00:00	3.784	0.9987
451	1/17/1993	5:00:00	3.771	0.9876
452	1/15/1993	13:00:00	3.759	0.9773
453	3/26/1975	4:00:00	3.755	0.9739
454	3/16/1986	23:00:00	3.754	0.9730
455	12/27/1984	3:00:00	3.736	0.9578
456	3/25/1994	0:00:00	3.735	0.9569
457	2/22/2005	21:00:00	3.719	0.9434
458	1/7/1993	5:00:00	3.713	0.9384
459	1/7/1993	6:00:00	3.708	0.9342
460	2/22/2005	20:00:00	3.702	0.9291
461	12/29/2004	3:00:00	3.687	0.9166
462	3/12/1986	12:00:00	3.682	0.9124
463	10/20/1979	15:00:00	3.643	0.8801
464	1/7/1993	2:00:00	3.639	0.8768
465	11/25/1985	5:00:00	3.622	0.8629
466	1/14/1993	1:00:00	3.619	0.8605
467	11/11/1985	13:00:00	3.610	0.8531
468	1/6/1993	23:00:00	3.610	0.8531
469	1/5/1992	20:00:00	3.599	0.8442
470	1/25/1995	21:00:00	3.587	0.8345
471	1/13/1993	1:00:00	3.578	0.8272
472	3/20/1981	5:00:00	3.573	0.8232
473	3/2/1983	2:00:00	3.572	0.8224
474	3/5/2005	2:00:00	3.571	0.8216
475	1/26/1997	9:00:00	3.556	0.8096
476	1/5/1992	19:00:00	3.547	0.8024
477	11/24/1984	23:00:00	3.542	0.7984
478	1/7/1993	11:00:00	3.527	0.7865
479	2/1/1996	5:00:00	3.520	0.7810
480	12/7/1992	20:00:00	3.515	0.7770
481	4/26/1994	18:00:00	3.514	0.7762
482	1/5/1992	18:00:00	3.481	0.7504
483	1/25/1995	12:00:00	3.469	0.7411
484	1/26/1997	8:00:00	3.462	0.7356
485	9/25/1986	5:00:00	3.432	0.7126
486	1/5/1992	17:00:00	3.408	0.6943
487	3/28/1979	10:00:00	3.406	0.6928
488	3/2/1983	5:00:00	3.400	0.6882
489	2/6/1976	2:00:00	3.388	0.6792
490	2/21/2005	6:00:00	3.376	0.6702
491	1/12/1993	20:00:00	3.371	0.6664
492	1/6/1993	16:00:00	3.344	0.6464
493	8/17/1977	2:00:00	3.315	0.6250
494	12/7/1992	11:00:00	3.311	0.6221
495	11/4/1987	22:00:00	3.306	0.6185
496	3/13/1996	2:00:00	3.304	0.6170
497	2/7/1998	18:00:00	3.279	0.5989
498	1/10/1995	23:00:00	3.276	0.5967
499	3/4/2005	23:00:00	3.272	0.5939
500	1/31/1996	23:00:00	3.262	0.5867

450	1/7/1993	20:00:00	3.404	0.691
451	1/17/1993	5:00:00	3.393	0.683
452	1/15/1993	13:00:00	3.382	0.675
453	3/26/1975	4:00:00	3.379	0.672
454	3/16/1986	23:00:00	3.378	0.672
455	12/27/1984	3:00:00	3.361	0.659
456	3/25/1994	0:00:00	3.361	0.659
457	2/22/2005	21:00:00	3.346	0.648
458	1/7/1993	5:00:00	3.340	0.643
459	1/7/1993	6:00:00	3.336	0.640
460	2/22/2005	20:00:00	3.331	0.637
461	12/29/2004	3:00:00	3.317	0.626
462	3/12/1986	12:00:00	3.312	0.623
463	10/20/1979	15:00:00	3.277	0.597
464	1/7/1993	2:00:00	3.274	0.595
465	11/25/1985	5:00:00	3.259	0.585
466	1/14/1993	1:00:00	3.256	0.582
467	11/11/1985	13:00:00	3.248	0.577
468	1/6/1993	23:00:00	3.248	0.577
469	1/5/1992	20:00:00	3.238	0.570
470	1/25/1995	21:00:00	3.227	0.562
471	1/13/1993	1:00:00	3.219	0.556
472	3/20/1981	5:00:00	3.214	0.553
473	3/2/1983	2:00:00	3.213	0.552
474	3/5/2005	2:00:00	3.213	0.552
475	1/26/1997	9:00:00	3.200	0.543
476	1/5/1992	19:00:00	3.191	0.537
477	11/24/1984	23:00:00	3.187	0.534
478	1/7/1993	11:00:00	3.174	0.525
479	2/1/1996	5:00:00	3.167	0.520
480	12/7/1992	20:00:00	3.162	0.517
481	4/26/1994	18:00:00	3.161	0.516
482	1/5/1992	18:00:00	3.132	0.496
483	1/25/1995	12:00:00	3.121	0.489
484	1/26/1997	8:00:00	3.115	0.485
485	9/25/1986	5:00:00	3.087	0.466
486	1/5/1992	17:00:00	3.066	0.452
487	3/28/1979	10:00:00	3.064	0.451
488	3/2/1983	5:00:00	3.059	0.448
489	2/6/1976	2:00:00	3.048	0.441
490	2/21/2005	6:00:00	3.038	0.434
491	1/12/1993	20:00:00	3.033	0.431
492	1/6/1993	16:00:00	3.008	0.415
493	8/17/1977	2:00:00	2.983	0.399
494	12/7/1992	11:00:00	2.979	0.397
495	11/4/1987	22:00:00	2.975	0.394
496	3/13/1996	2:00:00	2.973	0.393
497	2/7/1998	18:00:00	2.951	0.379
498	1/10/1995	23:00:00	2.947	0.377
499	3/4/2005	23:00:00	2.944	0.375
500	1/31/1996	23:00:00	2.935	0.370

501	2/27/1983	7:00:00	3.239	0.5703
502	12/10/1984	20:00:00	3.221	0.5576
503	2/18/2005	6:00:00	3.219	0.5562
504	3/28/1979	20:00:00	3.197	0.5408
505	12/4/1974	10:00:00	3.196	0.5401
506	12/30/1981	14:00:00	3.179	0.5283
507	1/12/1993	23:00:00	3.155	0.5119
508	2/17/1997	21:00:00	3.146	0.5057
509	1/12/2001	13:00:00	3.144	0.5044
510	12/16/1987	21:00:00	3.127	0.4929
511	4/20/1988	12:00:00	3.109	0.4808
512	12/28/1984	0:00:00	3.104	0.4775
513	12/29/1991	18:00:00	3.045	0.4387
514	12/28/1977	9:00:00	3.044	0.4381
515	3/25/1998	17:00:00	3.043	0.4374
516	3/26/1998	17:00:00	3.043	0.4374
517	3/30/1998	17:00:00	3.043	0.4374
518	2/22/2008	8:00:00	3.029	0.4284
519	3/2/1983	21:00:00	3.027	0.4271
520	1/7/2008	6:00:00	3.023	0.4246
521	12/27/1984	20:00:00	3.013	0.4182
522	2/14/2008	17:00:00	3.013	0.4182
523	2/21/2005	5:00:00	3.011	0.4169
524	2/19/2007	17:00:00	2.986	0.4011
525	1/8/1974	4:00:00	2.978	0.3961
526	11/30/2002	17:00:00	2.973	0.3930
527	11/24/1984	18:00:00	2.972	0.3924
528	12/16/1987	19:00:00	2.957	0.3831
529	1/8/1974	5:00:00	2.955	0.3818
530	1/9/1980	17:00:00	2.948	0.3775
531	2/14/1978	0:00:00	2.938	0.3714
532	1/7/1974	19:00:00	2.928	0.3653
533	2/13/1978	23:00:00	2.928	0.3653
534	12/5/1997	17:00:00	2.926	0.3641
535	11/11/1985	12:00:00	2.917	0.3586
536	3/5/1978	12:00:00	2.892	0.3437
537	3/5/1978	6:00:00	2.890	0.3425
538	3/1/1991	12:00:00	2.880	0.3366
539	1/7/1974	16:00:00	2.874	0.3330
540	2/11/1978	13:00:00	2.865	0.3277
541	12/19/1987	18:00:00	2.865	0.3277
542	12/7/2007	9:00:00	2.865	0.3277
543	1/7/1974	15:00:00	2.855	0.3219
544	11/25/2001	17:00:00	2.853	0.3207
545	2/28/1978	19:00:00	2.851	0.3196
546	2/15/1986	11:00:00	2.846	0.3167
547	2/12/2005	2:00:00	2.846	0.3167
548	12/5/2004	16:00:00	2.842	0.3144
549	10/20/2004	17:00:00	2.831	0.3081
550	12/16/1987	18:00:00	2.820	0.3018
551	2/12/2005	14:00:00	2.810	0.2961

501	2/27/1983	7:00:00	2.915	0.357
502	12/10/1984	20:00:00	2.898	0.347
503	2/18/2005	6:00:00	2.897	0.347
504	3/28/1979	20:00:00	2.876	0.334
505	12/4/1974	10:00:00	2.875	0.334
506	12/30/1981	14:00:00	2.860	0.325
507	1/12/1993	23:00:00	2.838	0.312
508	2/17/1997	21:00:00	2.831	0.308
509	1/12/2001	13:00:00	2.829	0.307
510	12/16/1987	21:00:00	2.813	0.298
511	4/20/1988	12:00:00	2.797	0.289
512	12/28/1984	0:00:00	2.793	0.287
513	12/28/1977	9:00:00	2.739	0.257
514	12/29/1991	18:00:00	2.739	0.257
515	3/25/1998	17:00:00	2.738	0.256
516	3/26/1998	17:00:00	2.738	0.256
517	3/30/1998	17:00:00	2.738	0.256
518	2/22/2008	8:00:00	2.726	0.250
519	3/2/1983	21:00:00	2.724	0.249
520	1/7/2008	6:00:00	2.720	0.247
521	12/27/1984	20:00:00	2.711	0.242
522	2/14/2008	17:00:00	2.711	0.242
523	2/21/2005	5:00:00	2.709	0.241
524	2/19/2007	17:00:00	2.687	0.230
525	1/8/1974	4:00:00	2.680	0.226
526	11/24/1984	18:00:00	2.674	0.223
527	11/30/2002	17:00:00	2.674	0.223
528	12/16/1987	19:00:00	2.661	0.216
529	1/8/1974	5:00:00	2.659	0.215
530	1/9/1980	17:00:00	2.653	0.212
531	2/14/1978	0:00:00	2.644	0.208
532	1/7/1974	19:00:00	2.634	0.203
533	2/13/1978	23:00:00	2.634	0.203
534	12/5/1997	17:00:00	2.633	0.202
535	11/11/1985	12:00:00	2.625	0.198
536	3/5/1978	12:00:00	2.602	0.187
537	3/5/1978	6:00:00	2.600	0.186
538	3/1/1991	12:00:00	2.592	0.182
539	1/7/1974	16:00:00	2.586	0.179
540	2/11/1978	13:00:00	2.578	0.176
541	12/19/1987	18:00:00	2.577	0.175
542	12/7/2007	9:00:00	2.577	0.175
543	1/7/1974	15:00:00	2.569	0.171
544	11/25/2001	17:00:00	2.567	0.170
545	2/28/1978	19:00:00	2.565	0.170
546	2/15/1986	11:00:00	2.560	0.167
547	2/12/2005	2:00:00	2.560	0.167
548	12/5/2004	16:00:00	2.557	0.166
549	10/20/2004	17:00:00	2.548	0.162
550	12/16/1987	18:00:00	2.537	0.157
551	2/12/2005	14:00:00	2.528	0.153

552	2/28/1991	16:00:00	2.802	0.2916
553	3/10/1975	18:00:00	2.776	0.2771
554	3/10/1975	17:00:00	2.757	0.2667
555	2/28/2006	10:00:00	2.746	0.2607
556	3/16/1986	0:00:00	2.739	0.2570
557	3/10/1975	16:00:00	2.736	0.2554
558	2/28/2006	1:00:00	2.725	0.2495
559	1/17/1978	2:00:00	2.717	0.2452
560	3/4/1978	22:00:00	2.717	0.2452
561	2/16/1998	16:00:00	2.713	0.2431
562	3/10/1975	15:00:00	2.712	0.2426
563	1/8/1974	7:00:00	2.706	0.2394
564	3/13/1996	10:00:00	2.706	0.2394
565	2/19/1993	18:00:00	2.704	0.2384
566	2/20/1980	6:00:00	2.697	0.2347
567	4/12/1999	4:00:00	2.696	0.2342
568	12/6/1986	18:00:00	2.695	0.2337
569	1/9/2005	8:00:00	2.695	0.2337
570	3/4/1978	21:00:00	2.680	0.2259
571	3/10/1975	14:00:00	2.665	0.2183
572	1/17/1978	1:00:00	2.660	0.2157
573	2/19/1980	17:00:00	2.657	0.2142
574	3/1/1991	4:00:00	2.652	0.2117
575	11/24/1978	12:00:00	2.647	0.2092
576	12/29/1991	17:00:00	2.639	0.2052
577	1/15/1978	5:00:00	2.638	0.2047
578	3/1/1991	3:00:00	2.634	0.2027
579	2/2/1983	16:00:00	2.628	0.1997
580	1/17/1978	0:00:00	2.621	0.1963
581	1/5/1974	11:00:00	2.601	0.1866
582	12/16/1987	17:00:00	2.598	0.1851
583	3/1/1976	20:00:00	2.594	0.1832
584	4/2/1974	5:00:00	2.592	0.1823
585	3/6/1980	6:00:00	2.582	0.1775
586	3/1/1981	13:00:00	2.580	0.1766
587	2/15/1986	8:00:00	2.555	0.1649
588	2/19/1993	21:00:00	2.544	0.1598
589	12/26/1977	16:00:00	2.540	0.1580
590	1/5/1974	10:00:00	2.538	0.1571
591	2/27/1991	22:00:00	2.527	0.1522
592	2/11/1978	15:00:00	2.521	0.1495
593	3/25/1994	2:00:00	2.517	0.1477
594	3/11/1975	0:00:00	2.511	0.1450
595	3/5/1981	19:00:00	2.510	0.1446
596	1/18/1979	19:00:00	2.483	0.1329
597	12/26/1977	14:00:00	2.477	0.1303
598	1/6/1992	0:00:00	2.471	0.1278
599	3/10/1975	22:00:00	2.469	0.1269
600	12/16/1987	15:00:00	2.469	0.1269
601	12/19/1987	17:00:00	2.465	0.1252
602	2/15/1986	7:00:00	2.463	0.1244

552	2/28/1991	16:00:00	2.521	0.149
553	3/10/1975	18:00:00	2.497	0.139
554	3/10/1975	17:00:00	2.480	0.132
555	2/28/2006	10:00:00	2.470	0.127
556	3/16/1986	0:00:00	2.465	0.125
557	3/10/1975	16:00:00	2.462	0.124
558	2/28/2006	1:00:00	2.451	0.119
559	1/17/1978	2:00:00	2.445	0.117
560	3/4/1978	22:00:00	2.445	0.117
561	2/16/1998	16:00:00	2.441	0.115
562	3/10/1975	15:00:00	2.440	0.115
563	1/8/1974	7:00:00	2.435	0.113
564	3/13/1996	10:00:00	2.435	0.113
565	2/19/1993	18:00:00	2.433	0.112
566	2/20/1980	6:00:00	2.427	0.110
567	4/12/1999	4:00:00	2.426	0.109
568	12/6/1986	18:00:00	2.425	0.109
569	1/9/2005	8:00:00	2.425	0.109
570	3/4/1978	21:00:00	2.412	0.104
571	3/10/1975	14:00:00	2.398	0.098
572	1/17/1978	1:00:00	2.394	0.097
573	2/19/1980	17:00:00	2.391	0.096
574	3/1/1991	4:00:00	2.386	0.094
575	11/24/1978	12:00:00	2.382	0.092
576	12/29/1991	17:00:00	2.375	0.089
577	1/15/1978	5:00:00	2.374	0.089
578	3/1/1991	3:00:00	2.370	0.088
579	2/2/1983	16:00:00	2.365	0.086
580	1/17/1978	0:00:00	2.358	0.083
581	1/5/1974	11:00:00	2.340	0.077
582	12/16/1987	17:00:00	2.337	0.076
583	3/1/1976	20:00:00	2.334	0.075
584	4/2/1974	5:00:00	2.332	0.074
585	3/6/1980	6:00:00	2.323	0.071
586	3/1/1981	13:00:00	2.321	0.070
587	2/15/1986	8:00:00	2.299	0.063
588	2/19/1993	21:00:00	2.289	0.059
589	12/26/1977	16:00:00	2.286	0.058
590	1/5/1974	10:00:00	2.284	0.058
591	2/27/1991	22:00:00	2.274	0.055
592	2/11/1978	15:00:00	2.269	0.053
593	3/25/1994	2:00:00	2.265	0.052
594	3/11/1975	0:00:00	2.259	0.050
595	3/5/1981	19:00:00	2.258	0.050
596	1/18/1979	19:00:00	2.234	0.042
597	12/26/1977	14:00:00	2.228	0.041
598	1/6/1992	0:00:00	2.223	0.039
599	3/10/1975	22:00:00	2.221	0.039
600	12/16/1987	15:00:00	2.221	0.039
601	12/19/1987	17:00:00	2.218	0.038
602	2/15/1986	7:00:00	2.216	0.037

603	2/7/1978	20:00:00	2.453	0.1202
604	2/7/1978	21:00:00	2.443	0.1161
605	3/10/1975	20:00:00	2.441	0.1153
606	2/21/1980	3:00:00	2.440	0.1149
607	1/29/1980	21:00:00	2.437	0.1137
608	11/24/1978	15:00:00	2.434	0.1125
609	2/12/2003	16:00:00	2.425	0.1088
610	2/18/1980	2:00:00	2.413	0.1041
611	1/7/2005	15:00:00	2.411	0.1033
612	1/1/1977	15:00:00	2.391	0.0955
613	3/2/1978	11:00:00	2.391	0.0955
614	12/26/1977	12:00:00	2.387	0.0940
615	2/27/1983	20:00:00	2.380	0.0914
616	1/19/1980	4:00:00	2.379	0.0910
617	3/1/1981	8:00:00	2.378	0.0906
618	2/18/1980	1:00:00	2.367	0.0865
619	3/4/1978	20:00:00	2.348	0.0796
620	2/20/1980	0:00:00	2.341	0.0771
621	1/5/1974	3:00:00	2.338	0.0760
622	3/3/1983	7:00:00	2.337	0.0757
623	1/31/1979	15:00:00	2.336	0.0753
624	1/11/2001	10:00:00	2.335	0.0750
625	2/7/1998	19:00:00	2.330	0.0732
626	11/25/1985	8:00:00	2.329	0.0729
627	3/2/1992	16:00:00	2.325	0.0715
628	3/24/1983	22:00:00	2.321	0.0701
629	1/18/1993	7:00:00	2.321	0.0701
630	2/12/2005	3:00:00	2.316	0.0684
631	3/1/1981	7:00:00	2.312	0.0670
632	1/11/1980	10:00:00	2.311	0.0667
633	2/7/1998	14:00:00	2.310	0.0664
634	1/15/1978	0:00:00	2.304	0.0643
635	3/25/1994	1:00:00	2.301	0.0633
636	4/18/1995	15:00:00	2.301	0.0633
637	10/29/1974	6:00:00	2.292	0.0604
638	1/11/1980	11:00:00	2.290	0.0597
639	1/11/1980	8:00:00	2.289	0.0594
640	3/3/1983	4:00:00	2.282	0.0571
641	3/2/1983	6:00:00	2.276	0.0552
642	11/12/2003	10:00:00	2.272	0.0540
643	12/19/1978	0:00:00	2.271	0.0537
644	2/22/2005	19:00:00	2.268	0.0527
645	1/18/1979	9:00:00	2.265	0.0518
646	2/8/1976	23:00:00	2.262	0.0509
647	3/1/1981	6:00:00	2.261	0.0506
648	3/8/1974	11:00:00	2.253	0.0481
649	2/28/1991	17:00:00	2.253	0.0481
650	3/11/1995	6:00:00	2.246	0.0460
651	10/19/2004	15:00:00	2.244	0.0454
652	1/12/1995	9:00:00	2.243	0.0451
653	1/18/1993	10:00:00	2.237	0.0434

603	2/7/1978	20:00:00	2.207	0.035
604	2/7/1978	21:00:00	2.198	0.033
605	3/10/1975	20:00:00	2.196	0.032
606	2/21/1980	3:00:00	2.196	0.032
607	1/29/1980	21:00:00	2.193	0.031
608	11/24/1978	15:00:00	2.190	0.030
609	2/12/2003	16:00:00	2.182	0.028
610	2/18/1980	2:00:00	2.171	0.026
611	1/7/2005	15:00:00	2.169	0.025
612	3/2/1978	11:00:00	2.152	0.021
613	1/1/1977	15:00:00	2.151	0.021
614	12/26/1977	12:00:00	2.147	0.020
615	1/19/1980	4:00:00	2.141	0.019
616	2/27/1983	20:00:00	2.141	0.019
617	3/1/1981	8:00:00	2.139	0.018
618	2/18/1980	1:00:00	2.130	0.016
619	3/4/1978	20:00:00	2.113	0.013
620	2/20/1980	0:00:00	2.106	0.012
621	1/5/1974	3:00:00	2.104	0.011
622	3/3/1983	7:00:00	2.103	0.011
623	1/31/1979	15:00:00	2.102	0.011
624	1/11/2001	10:00:00	2.100	0.010
625	2/7/1998	19:00:00	2.096	0.010
626	11/25/1985	8:00:00	2.095	0.010
627	3/2/1992	16:00:00	2.092	0.009
628	3/24/1983	22:00:00	2.088	0.008
629	1/18/1993	7:00:00	2.088	0.008
630	2/12/2005	3:00:00	2.083	0.008
631	3/1/1981	7:00:00	2.080	0.007
632	1/11/1980	10:00:00	2.079	0.007
633	2/7/1998	14:00:00	2.078	0.007
634	1/15/1978	0:00:00	2.073	0.006
635	3/25/1994	1:00:00	2.071	0.006
636	4/18/1995	15:00:00	2.070	0.006
637	10/29/1974	6:00:00	2.062	0.004
638	1/11/1980	8:00:00	2.060	0.004
639	1/11/1980	11:00:00	2.060	0.004
640	3/3/1983	4:00:00	2.054	0.003
641	3/2/1983	6:00:00	2.048	0.003
642	11/12/2003	10:00:00	2.044	0.002
643	12/19/1978	0:00:00	2.043	0.002
644	2/22/2005	19:00:00	2.041	0.002
645	1/18/1979	9:00:00	2.038	0.002
646	2/8/1976	23:00:00	2.035	0.001
647	3/1/1981	6:00:00	2.034	0.001
648	3/8/1974	11:00:00	2.027	0.001
649	2/28/1991	17:00:00	2.027	0.001
650	3/11/1995	6:00:00	2.021	0.000
651	10/19/2004	15:00:00	2.019	0.000
652	1/12/1995	9:00:00	2.018	0.000
653	1/18/1993	10:00:00	2.013	0.000

654	1/11/2001	6:00:00	2.221	0.0388
655	1/16/1993	14:00:00	2.216	0.0374
656	2/9/1976	0:00:00	2.211	0.0360
657	3/2/1978	6:00:00	2.204	0.0341
658	11/23/1973	4:00:00	2.201	0.0333
659	1/5/2008	12:00:00	2.201	0.0333
660	3/8/1974	10:00:00	2.195	0.0317
661	2/8/1976	20:00:00	2.194	0.0315
662	2/13/1978	22:00:00	2.193	0.0312
663	3/4/1983	5:00:00	2.193	0.0312
664	3/8/1975	14:00:00	2.192	0.0309
665	12/26/1977	10:00:00	2.191	0.0307
666	1/8/1974	1:00:00	2.179	0.0276
667	3/1/1981	12:00:00	2.172	0.0259
668	1/15/1993	20:00:00	2.171	0.0256
669	1/11/2001	9:00:00	2.171	0.0256
670	3/5/1995	14:00:00	2.168	0.0249
671	1/15/1993	17:00:00	2.167	0.0247
672	1/15/1993	15:00:00	2.156	0.0221
673	2/27/1983	17:00:00	2.154	0.0216
674	1/6/1978	15:00:00	2.151	0.0209
675	2/8/1976	18:00:00	2.147	0.0200
676	1/16/1993	3:00:00	2.147	0.0200
677	12/29/2004	5:00:00	2.147	0.0200
678	1/10/2005	0:00:00	2.140	0.0185
679	1/15/1993	21:00:00	2.137	0.0178
680	1/11/1980	2:00:00	2.125	0.0153
681	1/15/1993	18:00:00	2.122	0.0147
682	3/8/1974	9:00:00	2.121	0.0145
683	2/15/1992	14:00:00	2.111	0.0125
684	1/14/1978	21:00:00	2.100	0.0105
685	11/2/1974	0:00:00	2.098	0.0101
686	2/2/1983	14:00:00	2.089	0.0085
687	1/9/2005	0:00:00	2.080	0.0071
688	1/29/1980	12:00:00	2.077	0.0066
689	1/7/1993	23:00:00	2.074	0.0062
690	1/7/1993	17:00:00	2.064	0.0047
691	1/7/1992	21:00:00	2.063	0.0046
692	1/7/1993	21:00:00	2.063	0.0046
693	4/21/1988	20:00:00	2.062	0.0044
694	3/26/1991	4:00:00	2.058	0.0039
695	1/14/1993	5:00:00	2.046	0.0025
696	11/24/1978	9:00:00	2.035	0.0013
697	2/12/1978	23:00:00	2.028	0.0008
698	1/14/1993	4:00:00	2.027	0.0007
699	10/10/1986	2:00:00	2.025	0.0006
700	2/18/2005	7:00:00	2.024	0.0005
701	3/1/1978	14:00:00	2.013	0.0000

ΣW_{POST} :

3277

ΣW_{PRE} :

4009

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.400	(2/5)
3m/2	0.600	

SUMMARY

(a) ΣW_{PRE} :	4009
(b) ΣW_{POST} :	3277
(c) S_{RUSLE} :	1.121
(d) S_{NHD} :	N/A

E_p :	0.817	[(b)/(a)]
S_p :	1.121	[(c)]

E_p / S_p :	0.7
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 10 - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		3.800	cfs	
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	87.212	21.682
2	2/20/1980	19:00:00	79.938	19.753
3	10/22/1976	17:00:00	70.591	17.259
4	10/22/1976	16:00:00	58.864	14.107
5	9/10/1976	10:00:00	57.256	13.673
6	10/31/1987	19:00:00	55.128	13.098
7	2/7/1998	17:00:00	54.975	13.056
8	2/6/1992	20:00:00	52.856	12.483
9	1/9/2005	21:00:00	52.631	12.422
10	1/29/1980	7:00:00	50.194	11.762
11	2/19/1993	16:00:00	49.732	11.636
12	2/2/1998	17:00:00	48.405	11.276
13	10/20/2004	12:00:00	46.296	10.704
14	2/13/1998	17:00:00	45.420	10.466
15	10/27/2004	5:00:00	44.543	10.228
16	10/18/2004	13:00:00	44.491	10.214
17	3/6/1975	11:00:00	44.209	10.137
18	3/1/1983	16:00:00	41.849	9.495
19	1/31/1979	14:00:00	41.696	9.454
20	1/9/2005	20:00:00	41.416	9.378
21	3/2/1983	18:00:00	38.134	8.485
22	2/15/1992	15:00:00	37.333	8.268
23	2/21/2005	14:00:00	37.069	8.196
24	10/10/1986	0:00:00	36.703	8.096
25	8/17/1977	3:00:00	35.799	7.851
26	4/18/1995	12:00:00	35.162	7.678
27	12/4/1974	12:00:00	35.130	7.669
28	3/3/1983	1:00:00	34.409	7.473
29	1/18/1993	6:00:00	34.254	7.431
30	12/28/1977	8:00:00	33.932	7.344
31	1/13/1993	22:00:00	33.774	7.301
32	2/20/1980	20:00:00	33.502	7.227
33	3/4/1978	18:00:00	33.091	7.115
34	2/18/1980	5:00:00	32.939	7.074
35	4/23/1980	4:00:00	32.876	7.057
36	2/15/1986	4:00:00	32.733	7.018
37	1/31/1979	16:00:00	32.625	6.989
38	1/31/1979	13:00:00	32.268	6.892
39	2/16/1980	20:00:00	32.260	6.890
40	2/12/2003	17:00:00	31.744	6.750

Work Calculations, Post-Development Conditions				
Low flow Threshold:		3.800	cfs	
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	52.287	12.329
2	2/20/1980	19:00:00	47.928	11.147
3	10/22/1976	17:00:00	42.320	9.624
4	10/22/1976	16:00:00	35.284	7.711
5	9/10/1976	10:00:00	34.326	7.451
6	10/31/1987	19:00:00	33.053	7.105
7	2/7/1998	17:00:00	32.961	7.080
8	2/6/1992	20:00:00	31.685	6.734
9	1/9/2005	21:00:00	31.556	6.699
10	1/29/1980	7:00:00	30.093	6.303
11	2/19/1993	16:00:00	29.814	6.227
12	2/2/1998	17:00:00	29.021	6.013
13	10/20/2004	12:00:00	27.753	5.671
14	2/13/1998	17:00:00	27.232	5.530
15	10/27/2004	5:00:00	26.691	5.384
16	10/18/2004	13:00:00	26.666	5.378
17	3/6/1975	11:00:00	26.495	5.332
18	3/1/1983	16:00:00	25.091	4.954
19	1/31/1979	14:00:00	25.000	4.930
20	1/9/2005	20:00:00	24.823	4.882
21	3/2/1983	18:00:00	22.863	4.358
22	2/15/1992	15:00:00	22.383	4.230
23	2/21/2005	14:00:00	22.225	4.188
24	10/10/1986	0:00:00	21.991	4.126
25	8/17/1977	3:00:00	21.462	3.986
26	4/18/1995	12:00:00	21.079	3.884
27	12/4/1974	12:00:00	21.055	3.878
28	3/3/1983	1:00:00	20.629	3.765
29	1/18/1993	6:00:00	20.522	3.737
30	12/28/1977	8:00:00	20.328	3.686
31	1/13/1993	22:00:00	20.250	3.665
32	2/20/1980	20:00:00	20.088	3.623
33	3/4/1978	18:00:00	19.835	3.556
34	2/18/1980	5:00:00	19.749	3.533
35	4/23/1980	4:00:00	19.685	3.516
36	2/15/1986	4:00:00	19.624	3.500
37	1/31/1979	16:00:00	19.559	3.483
38	1/31/1979	13:00:00	19.346	3.427
39	2/16/1980	20:00:00	19.342	3.426
40	2/12/2003	17:00:00	19.032	3.345

41	1/31/1979	8:00:00	30.974	6.541
42	3/3/1983	6:00:00	30.695	6.466
43	2/25/2003	17:00:00	29.832	6.232
44	1/9/1980	13:00:00	29.629	6.177
45	2/16/1998	17:00:00	28.951	5.994
46	5/1/1978	5:00:00	28.127	5.772
47	3/5/2005	0:00:00	28.096	5.763
48	10/20/2004	16:00:00	27.995	5.736
49	10/20/2004	15:00:00	27.937	5.720
50	10/27/2004	14:00:00	27.884	5.706
51	10/20/2004	13:00:00	27.822	5.689
52	2/15/1986	6:00:00	26.851	5.427
53	1/11/2005	4:00:00	26.725	5.394
54	11/25/1985	7:00:00	26.694	5.385
55	10/27/2004	8:00:00	26.538	5.343
56	12/29/2004	4:00:00	26.373	5.299
57	2/23/2005	4:00:00	26.354	5.294
58	2/15/1986	5:00:00	26.247	5.265
59	10/28/1974	12:00:00	26.197	5.251
60	3/16/1986	21:00:00	26.145	5.237
61	12/29/2004	2:00:00	25.870	5.163
62	1/25/1995	19:00:00	25.847	5.157
63	10/27/2004	7:00:00	25.805	5.146
64	10/19/2004	8:00:00	25.538	5.074
65	2/21/2005	11:00:00	25.457	5.053
66	3/21/1983	5:00:00	25.427	5.044
67	4/4/2006	23:00:00	25.178	4.978
68	3/11/1995	4:00:00	25.054	4.944
69	11/22/1996	3:00:00	24.975	4.923
70	11/12/2003	7:00:00	24.862	4.893
71	2/27/1978	22:00:00	24.714	4.853
72	10/28/1974	11:00:00	24.686	4.846
73	1/27/2008	2:00:00	24.574	4.816
74	10/27/2004	6:00:00	24.564	4.813
75	12/28/1977	13:00:00	24.562	4.812
76	12/25/2003	19:00:00	24.491	4.793
77	1/8/1998	17:00:00	24.373	4.762
78	2/13/1978	11:00:00	24.178	4.710
79	2/10/1978	6:00:00	24.136	4.698
80	2/10/1978	5:00:00	24.107	4.691
81	3/1/1981	14:00:00	23.983	4.657
82	2/19/1980	22:00:00	23.953	4.649
83	3/5/1995	20:00:00	23.939	4.646
84	1/15/1978	4:00:00	23.859	4.624
85	4/5/2006	7:00:00	23.779	4.603
86	12/28/2004	22:00:00	23.759	4.598
87	2/18/1980	9:00:00	23.725	4.588
88	10/27/2004	10:00:00	23.681	4.577
89	1/10/1978	8:00:00	23.564	4.545
90	3/5/1995	17:00:00	23.549	4.541
91	12/18/1988	14:00:00	23.495	4.527

41	1/31/1979	8:00:00	18.569	3.224
42	3/3/1983	6:00:00	18.403	3.181
43	2/25/2003	17:00:00	17.874	3.043
44	1/9/1980	13:00:00	17.738	3.008
45	2/16/1998	17:00:00	17.357	2.909
46	5/1/1978	5:00:00	16.850	2.778
47	3/5/2005	0:00:00	16.842	2.776
48	10/20/2004	16:00:00	16.786	2.761
49	10/20/2004	15:00:00	16.751	2.752
50	10/27/2004	14:00:00	16.691	2.737
51	10/20/2004	13:00:00	16.683	2.735
52	2/15/1986	6:00:00	16.098	2.584
53	1/11/2005	4:00:00	16.023	2.565
54	11/25/1985	7:00:00	16.000	2.559
55	10/27/2004	8:00:00	15.910	2.536
56	12/29/2004	4:00:00	15.811	2.511
57	2/23/2005	4:00:00	15.798	2.508
58	2/15/1986	5:00:00	15.736	2.492
59	10/28/1974	12:00:00	15.705	2.484
60	3/16/1986	21:00:00	15.659	2.472
61	12/29/2004	2:00:00	15.508	2.434
62	1/25/1995	19:00:00	15.486	2.428
63	10/27/2004	7:00:00	15.470	2.424
64	10/19/2004	8:00:00	15.305	2.382
65	2/21/2005	11:00:00	15.225	2.362
66	3/21/1983	5:00:00	15.194	2.354
67	4/4/2006	23:00:00	15.053	2.318
68	3/11/1995	4:00:00	14.996	2.304
69	11/22/1996	3:00:00	14.967	2.296
70	11/12/2003	7:00:00	14.904	2.280
71	10/28/1974	11:00:00	14.777	2.248
72	2/27/1978	22:00:00	14.765	2.245
73	10/27/2004	6:00:00	14.726	2.235
74	12/28/1977	13:00:00	14.696	2.228
75	1/27/2008	2:00:00	14.693	2.227
76	12/25/2003	19:00:00	14.632	2.212
77	1/8/1998	17:00:00	14.611	2.206
78	2/10/1978	6:00:00	14.471	2.171
79	2/10/1978	5:00:00	14.453	2.167
80	2/13/1978	11:00:00	14.453	2.167
81	3/1/1981	14:00:00	14.377	2.148
82	3/5/1995	20:00:00	14.352	2.141
83	2/19/1980	22:00:00	14.351	2.141
84	1/15/1978	4:00:00	14.304	2.129
85	2/18/1980	9:00:00	14.223	2.109
86	4/5/2006	7:00:00	14.213	2.106
87	10/27/2004	10:00:00	14.198	2.103
88	12/28/2004	22:00:00	14.198	2.103
89	3/5/1995	17:00:00	14.118	2.083
90	1/10/1978	8:00:00	14.081	2.073
91	1/29/1980	20:00:00	14.061	2.068

92	2/19/1980	16:00:00	23.479	4.523
93	1/29/1980	20:00:00	23.452	4.515
94	2/15/1986	3:00:00	23.438	4.512
95	1/11/1980	13:00:00	23.398	4.501
96	2/27/1983	19:00:00	23.383	4.497
97	3/1/1983	17:00:00	23.276	4.468
98	3/2/1983	19:00:00	23.275	4.468
99	3/2/1983	17:00:00	23.262	4.465
100	3/27/1998	17:00:00	23.237	4.458
101	1/29/1980	18:00:00	23.235	4.458
102	2/9/1976	1:00:00	23.173	4.441
103	2/8/1976	22:00:00	23.097	4.421
104	2/8/1976	21:00:00	23.051	4.408
105	3/11/2006	1:00:00	23.047	4.407
106	1/11/2005	5:00:00	23.022	4.401
107	1/11/1980	7:00:00	23.014	4.399
108	12/23/1982	1:00:00	22.925	4.375
109	2/26/1983	15:00:00	22.851	4.355
110	1/31/1979	12:00:00	22.802	4.342
111	2/16/1980	19:00:00	22.778	4.336
112	3/6/1980	5:00:00	22.756	4.330
113	11/12/2003	6:00:00	22.736	4.324
114	1/14/1978	20:00:00	22.428	4.242
115	12/18/1978	18:00:00	22.242	4.193
116	2/11/2005	16:00:00	22.212	4.185
117	2/21/2005	13:00:00	22.172	4.174
118	3/2/1992	15:00:00	22.085	4.151
119	2/7/1976	4:00:00	21.887	4.099
120	12/7/1992	17:00:00	21.855	4.090
121	2/1/1996	2:00:00	21.795	4.074
122	1/12/1997	17:00:00	21.670	4.041
123	10/14/2006	0:00:00	21.544	4.008
124	2/28/1978	20:00:00	21.491	3.993
125	3/16/1986	11:00:00	21.338	3.953
126	11/11/1985	11:00:00	21.230	3.924
127	2/14/1980	17:00:00	21.197	3.916
128	2/28/2006	0:00:00	21.172	3.909
129	1/12/2001	12:00:00	21.167	3.908
130	12/4/1987	22:00:00	20.956	3.852
131	1/7/2008	1:00:00	20.683	3.780
132	12/25/1988	1:00:00	20.677	3.778
133	11/20/1983	12:00:00	20.634	3.767
134	12/28/2004	19:00:00	20.468	3.723
135	10/20/2004	14:00:00	20.453	3.719
136	2/9/1981	2:00:00	20.432	3.713
137	11/30/2007	23:00:00	20.329	3.686
138	1/10/1995	20:00:00	20.318	3.683
139	1/31/1979	6:00:00	20.213	3.655
140	2/19/2007	13:00:00	20.131	3.634
141	3/13/1996	9:00:00	20.106	3.627
142	1/16/1979	2:00:00	20.066	3.617

92	2/15/1986	3:00:00	14.036	2.062
93	12/18/1988	14:00:00	14.033	2.061
94	2/19/1980	16:00:00	14.031	2.061
95	1/11/1980	13:00:00	14.029	2.060
96	2/27/1983	19:00:00	14.020	2.058
97	3/1/1983	17:00:00	13.956	2.042
98	3/2/1983	19:00:00	13.955	2.042
99	3/2/1983	17:00:00	13.946	2.040
100	3/27/1998	17:00:00	13.928	2.035
101	1/29/1980	18:00:00	13.917	2.032
102	2/9/1976	1:00:00	13.892	2.026
103	2/8/1976	22:00:00	13.849	2.015
104	2/8/1976	21:00:00	13.819	2.008
105	1/11/2005	5:00:00	13.804	2.004
106	3/11/2006	1:00:00	13.798	2.003
107	1/11/1980	7:00:00	13.784	1.999
108	12/23/1982	1:00:00	13.677	1.973
109	1/31/1979	12:00:00	13.669	1.971
110	2/26/1983	15:00:00	13.651	1.966
111	2/16/1980	19:00:00	13.641	1.964
112	11/12/2003	6:00:00	13.590	1.951
113	1/14/1978	20:00:00	13.445	1.915
114	3/6/1980	5:00:00	13.398	1.903
115	2/21/2005	13:00:00	13.293	1.877
116	12/18/1978	18:00:00	13.282	1.875
117	2/11/2005	16:00:00	13.254	1.868
118	3/2/1992	15:00:00	13.186	1.851
119	12/7/1992	17:00:00	13.095	1.828
120	2/7/1976	4:00:00	13.068	1.822
121	2/1/1996	2:00:00	13.057	1.819
122	1/12/1997	17:00:00	12.930	1.788
123	2/28/1978	20:00:00	12.884	1.777
124	3/16/1986	11:00:00	12.735	1.740
125	1/12/2001	12:00:00	12.685	1.728
126	11/11/1985	11:00:00	12.652	1.720
127	2/14/1980	17:00:00	12.649	1.719
128	10/14/2006	0:00:00	12.635	1.716
129	2/28/2006	0:00:00	12.615	1.711
130	12/25/1988	1:00:00	12.396	1.657
131	1/7/2008	1:00:00	12.388	1.655
132	11/20/1983	12:00:00	12.370	1.651
133	12/4/1987	22:00:00	12.331	1.641
134	10/20/2004	14:00:00	12.265	1.625
135	2/9/1981	2:00:00	12.244	1.620
136	12/28/2004	19:00:00	12.196	1.609
137	1/10/1995	20:00:00	12.132	1.593
138	11/30/2007	23:00:00	12.121	1.590
139	1/31/1979	6:00:00	12.110	1.588
140	2/19/2007	13:00:00	12.069	1.578
141	3/13/1996	9:00:00	12.044	1.572
142	3/5/1995	18:00:00	11.981	1.557

143	3/5/1995	18:00:00	19.983	3.595
144	3/6/1980	10:00:00	19.816	3.551
145	2/27/1983	18:00:00	19.651	3.508
146	10/27/2004	9:00:00	19.606	3.496
147	2/14/2001	17:00:00	19.569	3.486
148	10/10/1986	4:00:00	19.546	3.480
149	2/8/1994	7:00:00	19.391	3.439
150	4/15/1976	21:00:00	19.199	3.389
151	1/17/1990	3:00:00	19.094	3.361
152	1/6/2008	7:00:00	19.068	3.355
153	1/18/1993	14:00:00	19.038	3.347
154	3/18/1983	23:00:00	18.882	3.306
155	1/9/2005	5:00:00	18.871	3.303
156	2/5/1978	15:00:00	18.846	3.296
157	1/4/2005	4:00:00	18.816	3.289
158	2/23/2004	17:00:00	18.628	3.239
159	2/14/1995	11:00:00	18.520	3.211
160	2/21/2005	12:00:00	18.428	3.187
161	12/25/1988	0:00:00	18.409	3.182
162	11/11/1978	22:00:00	17.931	3.058
163	3/5/2005	1:00:00	17.888	3.046
164	10/28/1974	13:00:00	17.835	3.033
165	2/13/1992	6:00:00	17.820	3.029
166	12/18/1984	18:00:00	17.817	3.028
167	4/28/2005	23:00:00	17.798	3.023
168	3/15/1986	23:00:00	17.793	3.022
169	12/7/1992	14:00:00	17.695	2.996
170	2/8/1983	6:00:00	17.616	2.976
171	11/25/1985	1:00:00	17.613	2.975
172	1/29/1983	1:00:00	17.608	2.974
173	9/10/1976	9:00:00	17.587	2.968
174	3/24/1998	17:00:00	17.352	2.907
175	1/27/1983	11:00:00	17.216	2.872
176	3/1/1991	9:00:00	16.935	2.800
177	1/4/1974	20:00:00	16.892	2.789
178	3/1/1991	7:00:00	16.820	2.770
179	2/14/1995	10:00:00	16.735	2.748
180	5/9/1977	0:00:00	16.678	2.733
181	2/19/1993	17:00:00	16.529	2.695
182	4/20/1988	9:00:00	16.407	2.664
183	11/25/1983	0:00:00	16.405	2.663
184	3/5/1995	19:00:00	16.398	2.661
185	2/5/1976	2:00:00	16.376	2.656
186	3/11/2006	3:00:00	16.295	2.635
187	3/19/1981	23:00:00	16.128	2.592
188	3/22/2005	23:00:00	16.080	2.580
189	4/5/2006	2:00:00	15.975	2.553
190	11/20/1983	11:00:00	15.960	2.549
191	3/5/1995	16:00:00	15.947	2.546
192	12/18/1984	16:00:00	15.867	2.525
193	10/19/2004	16:00:00	15.861	2.524

143	1/16/1979	2:00:00	11.969	1.554
144	3/6/1980	10:00:00	11.876	1.531
145	2/27/1983	18:00:00	11.779	1.508
146	10/27/2004	9:00:00	11.755	1.502
147	2/14/2001	17:00:00	11.721	1.494
148	10/10/1986	4:00:00	11.696	1.488
149	2/8/1994	7:00:00	11.550	1.453
150	4/15/1976	21:00:00	11.423	1.423
151	1/17/1990	3:00:00	11.399	1.417
152	1/18/1993	14:00:00	11.376	1.412
153	1/6/2008	7:00:00	11.357	1.407
154	1/9/2005	5:00:00	11.304	1.394
155	1/4/2005	4:00:00	11.279	1.389
156	2/5/1978	15:00:00	11.269	1.386
157	3/18/1983	23:00:00	11.243	1.380
158	2/23/2004	17:00:00	11.155	1.359
159	2/14/1995	11:00:00	11.102	1.347
160	2/21/2005	12:00:00	11.050	1.334
161	12/25/1988	0:00:00	10.944	1.309
162	3/5/2005	1:00:00	10.724	1.258
163	10/28/1974	13:00:00	10.692	1.250
164	12/18/1984	18:00:00	10.680	1.247
165	11/11/1978	22:00:00	10.664	1.244
166	2/13/1992	6:00:00	10.653	1.241
167	12/7/1992	14:00:00	10.608	1.231
168	4/28/2005	23:00:00	10.579	1.224
169	3/15/1986	23:00:00	10.567	1.221
170	1/29/1983	1:00:00	10.475	1.200
171	2/8/1983	6:00:00	10.475	1.200
172	11/25/1985	1:00:00	10.460	1.196
173	9/10/1976	9:00:00	10.448	1.193
174	3/24/1998	17:00:00	10.370	1.175
175	1/27/1983	11:00:00	10.304	1.160
176	3/1/1991	9:00:00	10.153	1.125
177	3/1/1991	7:00:00	10.083	1.109
178	1/4/1974	20:00:00	10.008	1.092
179	5/9/1977	0:00:00	9.989	1.088
180	2/14/1995	10:00:00	9.936	1.075
181	2/19/1993	17:00:00	9.912	1.070
182	3/5/1995	19:00:00	9.832	1.052
183	4/20/1988	9:00:00	9.774	1.039
184	3/11/2006	3:00:00	9.753	1.034
185	2/5/1976	2:00:00	9.716	1.025
186	11/25/1983	0:00:00	9.666	1.014
187	3/22/2005	23:00:00	9.629	1.006
188	4/5/2006	2:00:00	9.576	0.994
189	3/19/1981	23:00:00	9.569	0.992
190	3/5/1995	16:00:00	9.559	0.990
191	11/20/1983	11:00:00	9.543	0.986
192	10/19/2004	16:00:00	9.509	0.979
193	9/25/1986	6:00:00	9.433	0.962

194	2/19/2007	12:00:00	15.769	2.500
195	2/27/1983	6:00:00	15.742	2.493
196	9/25/1986	6:00:00	15.741	2.493
197	1/16/1993	11:00:00	15.678	2.477
198	1/16/1993	10:00:00	15.672	2.475
199	12/17/2002	17:00:00	15.648	2.469
200	1/16/1993	9:00:00	15.639	2.467
201	1/11/2005	8:00:00	15.595	2.456
202	1/11/2005	3:00:00	15.569	2.449
203	11/8/2004	1:00:00	15.566	2.448
204	2/23/1998	17:00:00	15.530	2.439
205	2/26/2004	17:00:00	15.530	2.439
206	12/9/1996	19:00:00	15.526	2.438
207	1/15/1993	16:00:00	15.498	2.431
208	1/15/1993	14:00:00	15.481	2.427
209	12/27/1984	19:00:00	15.417	2.411
210	1/8/1993	0:00:00	15.382	2.402
211	3/2/1992	17:00:00	15.362	2.397
212	3/11/1975	14:00:00	15.311	2.384
213	1/8/1974	3:00:00	15.269	2.373
214	2/13/1978	13:00:00	15.243	2.366
215	2/13/1978	0:00:00	15.223	2.361
216	12/29/1976	14:00:00	15.194	2.354
217	11/12/2003	9:00:00	15.189	2.353
218	2/8/1983	7:00:00	15.173	2.349
219	1/7/1974	18:00:00	15.158	2.345
220	3/5/1978	8:00:00	15.147	2.342
221	2/23/2005	1:00:00	15.089	2.327
222	1/7/1993	4:00:00	15.062	2.320
223	1/7/1993	3:00:00	15.019	2.310
224	1/17/1978	3:00:00	15.001	2.305
225	3/12/1978	2:00:00	14.970	2.297
226	1/11/2001	8:00:00	14.940	2.290
227	3/12/1978	1:00:00	14.916	2.283
228	1/7/1993	0:00:00	14.916	2.283
229	3/12/1978	0:00:00	14.852	2.267
230	11/24/1978	13:00:00	14.846	2.266
231	2/21/1980	5:00:00	14.836	2.263
232	1/28/1980	22:00:00	14.792	2.252
233	12/4/1974	11:00:00	14.787	2.251
234	2/21/1980	1:00:00	14.740	2.239
235	1/15/1978	6:00:00	14.692	2.227
236	2/20/1980	18:00:00	14.618	2.208
237	2/1/1996	4:00:00	14.614	2.207
238	2/10/1978	4:00:00	14.497	2.178
239	1/15/1978	3:00:00	14.487	2.175
240	2/18/1980	6:00:00	14.407	2.155
241	1/15/1978	2:00:00	14.390	2.151
242	3/11/1986	2:00:00	14.380	2.148
243	1/6/1979	3:00:00	14.377	2.148
244	11/25/1985	4:00:00	14.343	2.139

194	12/18/1984	16:00:00	9.428	0.961
195	2/19/2007	12:00:00	9.425	0.960
196	2/27/1983	6:00:00	9.416	0.958
197	1/16/1993	11:00:00	9.400	0.954
198	1/16/1993	10:00:00	9.397	0.954
199	1/16/1993	9:00:00	9.373	0.948
200	1/11/2005	8:00:00	9.349	0.943
201	12/17/2002	17:00:00	9.347	0.942
202	1/11/2005	3:00:00	9.334	0.940
203	1/15/1993	16:00:00	9.289	0.930
204	1/15/1993	14:00:00	9.280	0.928
205	2/23/1998	17:00:00	9.273	0.926
206	2/26/2004	17:00:00	9.273	0.926
207	1/8/1993	0:00:00	9.220	0.914
208	3/2/1992	17:00:00	9.207	0.911
209	11/8/2004	1:00:00	9.207	0.911
210	12/9/1996	19:00:00	9.183	0.906
211	3/11/1975	14:00:00	9.171	0.903
212	1/8/1974	3:00:00	9.142	0.897
213	12/27/1984	19:00:00	9.139	0.896
214	2/13/1978	13:00:00	9.130	0.894
215	2/13/1978	0:00:00	9.124	0.893
216	2/8/1983	7:00:00	9.097	0.887
217	11/12/2003	9:00:00	9.094	0.886
218	1/7/1974	18:00:00	9.076	0.882
219	3/5/1978	8:00:00	9.069	0.881
220	12/29/1976	14:00:00	9.041	0.875
221	2/23/2005	1:00:00	9.036	0.874
222	1/7/1993	4:00:00	9.031	0.872
223	1/7/1993	3:00:00	9.003	0.866
224	1/17/1978	3:00:00	8.991	0.864
225	3/12/1978	2:00:00	8.975	0.860
226	1/11/2001	8:00:00	8.954	0.855
227	3/12/1978	1:00:00	8.943	0.853
228	1/7/1993	0:00:00	8.941	0.853
229	3/12/1978	0:00:00	8.904	0.845
230	11/24/1978	13:00:00	8.898	0.843
231	2/21/1980	5:00:00	8.881	0.840
232	12/4/1974	11:00:00	8.857	0.834
233	2/21/1980	1:00:00	8.821	0.826
234	1/15/1978	6:00:00	8.806	0.823
235	2/1/1996	4:00:00	8.761	0.813
236	1/28/1980	22:00:00	8.740	0.809
237	2/20/1980	18:00:00	8.738	0.808
238	1/15/1978	3:00:00	8.686	0.797
239	2/10/1978	4:00:00	8.664	0.792
240	2/18/1980	6:00:00	8.641	0.787
241	1/15/1978	2:00:00	8.627	0.784
242	11/25/1985	4:00:00	8.589	0.776
243	3/11/1986	2:00:00	8.571	0.772
244	1/15/1978	1:00:00	8.542	0.766

245	2/22/1998	17:00:00	14.277	2.122
246	1/15/1978	1:00:00	14.253	2.116
247	2/7/1978	19:00:00	14.224	2.109
248	1/14/1990	4:00:00	14.211	2.106
249	3/24/1983	4:00:00	14.190	2.101
250	3/5/1978	5:00:00	14.174	2.097
251	1/29/1980	19:00:00	14.128	2.085
252	2/18/1980	4:00:00	14.126	2.085
253	3/16/1986	17:00:00	14.104	2.079
254	1/29/1980	23:00:00	14.084	2.074
255	1/11/1980	12:00:00	14.051	2.066
256	1/4/1987	19:00:00	14.008	2.055
257	1/16/1978	23:00:00	14.004	2.054
258	1/27/1983	13:00:00	13.982	2.049
259	12/19/1978	9:00:00	13.973	2.046
260	1/31/1996	22:00:00	13.957	2.042
261	1/11/1980	9:00:00	13.923	2.034
262	1/5/1974	2:00:00	13.885	2.024
263	4/20/1983	12:00:00	13.884	2.024
264	1/18/1979	18:00:00	13.879	2.023
265	3/2/1978	10:00:00	13.849	2.015
266	1/28/2005	17:00:00	13.844	2.014
267	11/24/1978	7:00:00	13.838	2.013
268	3/2/1981	2:00:00	13.811	2.006
269	2/9/1976	3:00:00	13.769	1.995
270	1/29/1980	13:00:00	13.721	1.984
271	1/7/1993	16:00:00	13.690	1.976
272	2/8/1976	19:00:00	13.683	1.974
273	1/5/1974	1:00:00	13.673	1.972
274	3/5/1978	16:00:00	13.666	1.970
275	12/7/1992	13:00:00	13.662	1.969
276	12/3/1983	17:00:00	13.654	1.967
277	4/20/1983	11:00:00	13.587	1.950
278	3/11/2006	13:00:00	13.578	1.948
279	1/3/2005	10:00:00	13.570	1.946
280	11/4/1987	23:00:00	13.544	1.940
281	2/11/1978	12:00:00	13.511	1.931
282	1/19/1980	3:00:00	13.443	1.914
283	1/11/1980	1:00:00	13.420	1.909
284	1/5/1974	0:00:00	13.399	1.904
285	2/8/1994	8:00:00	13.386	1.900
286	2/19/2007	16:00:00	13.373	1.897
287	3/1/1978	11:00:00	13.313	1.882
288	2/12/2005	16:00:00	13.312	1.882
289	12/18/1978	23:00:00	13.303	1.880
290	2/7/1976	5:00:00	13.286	1.876
291	3/1/1991	10:00:00	13.281	1.874
292	12/20/2002	17:00:00	13.271	1.872
293	3/1/1978	9:00:00	13.188	1.851
294	3/1/1991	8:00:00	13.177	1.849
295	2/7/1998	16:00:00	13.153	1.843

245	2/7/1978	19:00:00	8.528	0.763
246	2/22/1998	17:00:00	8.503	0.758
247	1/6/1979	3:00:00	8.495	0.756
248	1/29/1980	19:00:00	8.473	0.751
249	3/24/1983	4:00:00	8.456	0.748
250	2/18/1980	4:00:00	8.451	0.746
251	3/5/1978	5:00:00	8.428	0.742
252	1/29/1980	23:00:00	8.426	0.741
253	1/11/1980	12:00:00	8.423	0.740
254	3/16/1986	17:00:00	8.402	0.736
255	1/31/1996	22:00:00	8.366	0.728
256	12/19/1978	9:00:00	8.362	0.727
257	1/27/1983	13:00:00	8.359	0.727
258	1/16/1978	23:00:00	8.356	0.726
259	1/14/1990	4:00:00	8.353	0.726
260	1/4/1987	19:00:00	8.349	0.725
261	1/11/1980	9:00:00	8.346	0.724
262	1/5/1974	2:00:00	8.324	0.719
263	4/20/1983	12:00:00	8.324	0.719
264	1/18/1979	18:00:00	8.285	0.711
265	3/2/1978	10:00:00	8.280	0.710
266	11/24/1978	7:00:00	8.272	0.708
267	2/9/1976	3:00:00	8.241	0.702
268	1/29/1980	13:00:00	8.223	0.698
269	3/2/1981	2:00:00	8.202	0.694
270	2/8/1976	19:00:00	8.201	0.693
271	1/5/1974	1:00:00	8.197	0.693
272	12/7/1992	13:00:00	8.186	0.690
273	4/20/1983	11:00:00	8.143	0.681
274	1/28/2005	17:00:00	8.138	0.680
275	3/5/1978	16:00:00	8.119	0.676
276	11/4/1987	23:00:00	8.118	0.676
277	3/11/2006	13:00:00	8.117	0.676
278	1/3/2005	10:00:00	8.116	0.675
279	1/7/1993	16:00:00	8.098	0.672
280	1/11/1980	1:00:00	8.035	0.659
281	1/5/1974	0:00:00	8.033	0.658
282	2/8/1994	8:00:00	8.026	0.657
283	12/3/1983	17:00:00	8.023	0.656
284	1/19/1980	3:00:00	8.014	0.654
285	2/19/2007	16:00:00	8.013	0.654
286	2/11/1978	12:00:00	8.007	0.653
287	3/1/1978	11:00:00	7.979	0.647
288	2/7/1976	5:00:00	7.968	0.645
289	3/1/1991	10:00:00	7.963	0.644
290	2/12/2005	16:00:00	7.957	0.642
291	12/18/1978	23:00:00	7.932	0.637
292	3/1/1978	9:00:00	7.908	0.632
293	3/1/1991	8:00:00	7.901	0.631
294	12/20/2002	17:00:00	7.893	0.629
295	2/7/1998	16:00:00	7.884	0.627

296	1/29/1980	9:00:00	13.115	1.833
297	3/1/1978	8:00:00	13.102	1.830
298	1/31/1979	10:00:00	13.092	1.828
299	3/11/1978	23:00:00	13.025	1.811
300	1/11/2005	2:00:00	13.010	1.808
301	3/1/1978	7:00:00	13.007	1.807
302	3/5/1995	22:00:00	12.999	1.805
303	1/4/1974	23:00:00	12.995	1.804
304	2/8/1993	21:00:00	12.966	1.797
305	3/24/1994	23:00:00	12.953	1.793
306	2/12/2005	8:00:00	12.952	1.793
307	3/5/1995	21:00:00	12.920	1.785
308	2/22/2008	7:00:00	12.877	1.775
309	11/23/1973	3:00:00	12.861	1.771
310	1/6/1992	12:00:00	12.861	1.771
311	12/5/2004	15:00:00	12.835	1.764
312	1/31/1979	9:00:00	12.817	1.760
313	2/27/1996	23:00:00	12.785	1.752
314	1/29/1980	5:00:00	12.670	1.724
315	11/23/1973	0:00:00	12.589	1.704
316	1/12/1993	16:00:00	12.566	1.699
317	2/6/1976	7:00:00	12.545	1.694
318	3/11/1995	7:00:00	12.544	1.693
319	3/10/1980	18:00:00	12.405	1.659
320	1/29/1980	4:00:00	12.391	1.656
321	3/28/1979	21:00:00	12.364	1.649
322	1/13/1993	21:00:00	12.339	1.643
323	4/7/1978	5:00:00	12.232	1.617
324	11/4/1987	19:00:00	12.154	1.598
325	1/12/1993	19:00:00	12.102	1.586
326	2/5/1978	18:00:00	12.057	1.575
327	3/2/1983	16:00:00	12.046	1.572
328	4/14/1998	17:00:00	11.928	1.544
329	1/5/1978	22:00:00	11.906	1.539
330	10/19/2004	18:00:00	11.883	1.533
331	12/29/2004	6:00:00	11.874	1.531
332	3/1/1978	6:00:00	11.869	1.530
333	4/2/1974	6:00:00	11.850	1.525
334	1/31/1979	7:00:00	11.845	1.524
335	1/15/1993	19:00:00	11.811	1.516
336	2/20/1980	5:00:00	11.791	1.511
337	11/24/1978	3:00:00	11.781	1.508
338	1/29/1980	2:00:00	11.711	1.492
339	1/9/2005	23:00:00	11.652	1.477
340	3/5/1995	13:00:00	11.604	1.466
341	1/4/1974	21:00:00	11.554	1.454
342	12/17/1978	23:00:00	11.549	1.453
343	3/16/1986	22:00:00	11.478	1.436
344	2/11/2003	17:00:00	11.451	1.429
345	1/9/1978	19:00:00	11.426	1.423
346	2/22/2005	22:00:00	11.423	1.423

296	3/1/1978	8:00:00	7.857	0.622
297	1/31/1979	10:00:00	7.848	0.620
298	1/29/1980	9:00:00	7.847	0.620
299	3/1/1978	7:00:00	7.800	0.610
300	3/5/1995	22:00:00	7.793	0.608
301	1/4/1974	23:00:00	7.786	0.607
302	2/12/2005	8:00:00	7.764	0.602
303	3/5/1995	21:00:00	7.748	0.599
304	2/8/1993	21:00:00	7.727	0.595
305	3/11/1978	23:00:00	7.710	0.591
306	3/24/1994	23:00:00	7.700	0.589
307	2/22/2008	7:00:00	7.698	0.589
308	1/31/1979	9:00:00	7.687	0.587
309	1/11/2005	2:00:00	7.676	0.584
310	12/5/2004	15:00:00	7.674	0.584
311	11/23/1973	3:00:00	7.672	0.584
312	2/27/1996	23:00:00	7.634	0.576
313	1/29/1980	5:00:00	7.596	0.568
314	1/6/1992	12:00:00	7.586	0.566
315	1/12/1993	16:00:00	7.519	0.553
316	3/11/1995	7:00:00	7.517	0.552
317	2/6/1976	7:00:00	7.496	0.548
318	1/29/1980	4:00:00	7.424	0.534
319	3/28/1979	21:00:00	7.410	0.531
320	3/10/1980	18:00:00	7.390	0.527
321	11/23/1973	0:00:00	7.348	0.518
322	4/7/1978	5:00:00	7.307	0.510
323	1/13/1993	21:00:00	7.270	0.503
324	11/4/1987	19:00:00	7.258	0.501
325	3/2/1983	16:00:00	7.214	0.492
326	2/5/1978	18:00:00	7.209	0.491
327	1/12/1993	19:00:00	7.190	0.487
328	12/29/2004	6:00:00	7.116	0.473
329	1/31/1979	7:00:00	7.102	0.470
330	4/2/1974	6:00:00	7.100	0.470
331	10/19/2004	18:00:00	7.100	0.470
332	1/15/1993	19:00:00	7.078	0.465
333	4/14/1998	17:00:00	7.053	0.460
334	3/1/1978	6:00:00	7.051	0.460
335	11/24/1978	3:00:00	7.025	0.455
336	1/29/1980	2:00:00	7.015	0.453
337	1/5/1978	22:00:00	7.010	0.452
338	1/9/2005	23:00:00	6.972	0.445
339	3/5/1995	13:00:00	6.956	0.442
340	2/20/1980	5:00:00	6.939	0.439
341	1/4/1974	21:00:00	6.925	0.436
342	3/16/1986	22:00:00	6.886	0.428
343	12/17/1978	23:00:00	6.849	0.421
344	2/22/2005	22:00:00	6.848	0.421
345	2/14/1995	12:00:00	6.831	0.418
346	1/29/1983	2:00:00	6.827	0.417

347	3/1/1983	15:00:00	11.407	1.419
348	2/14/1995	12:00:00	11.391	1.415
349	1/29/1983	2:00:00	11.385	1.414
350	1/7/1993	8:00:00	11.384	1.413
351	3/5/1995	12:00:00	11.282	1.389
352	12/6/1998	7:00:00	11.280	1.389
353	1/25/1995	23:00:00	11.239	1.379
354	4/5/2006	1:00:00	11.128	1.353
355	3/10/1986	21:00:00	11.124	1.352
356	1/6/1993	22:00:00	11.097	1.345
357	12/11/1984	11:00:00	11.085	1.343
358	12/11/1984	10:00:00	10.979	1.318
359	3/5/1981	18:00:00	10.915	1.302
360	12/27/1984	4:00:00	10.857	1.289
361	2/1/1996	3:00:00	10.852	1.288
362	11/24/1984	22:00:00	10.845	1.286
363	2/21/2005	7:00:00	10.758	1.266
364	3/12/1995	0:00:00	10.738	1.261
365	1/14/1990	5:00:00	10.678	1.247
366	8/17/1977	1:00:00	10.661	1.243
367	12/18/1984	19:00:00	10.621	1.234
368	1/31/1996	21:00:00	10.621	1.234
369	2/7/1978	18:00:00	10.595	1.228
370	1/5/1992	16:00:00	10.514	1.209
371	12/7/1992	15:00:00	10.493	1.204
372	10/31/1987	18:00:00	10.484	1.202
373	3/26/1991	3:00:00	10.449	1.194
374	12/19/1978	7:00:00	10.428	1.189
375	2/28/2006	2:00:00	10.427	1.188
376	1/27/2008	3:00:00	10.375	1.176
377	1/26/1997	3:00:00	10.344	1.169
378	1/14/1978	19:00:00	10.240	1.145
379	1/11/2001	7:00:00	10.233	1.144
380	1/6/1993	14:00:00	10.189	1.133
381	2/5/1976	17:00:00	10.132	1.120
382	2/2/1998	16:00:00	10.118	1.117
383	12/18/1984	17:00:00	10.113	1.116
384	1/10/1995	21:00:00	10.105	1.114
385	2/20/1993	7:00:00	10.079	1.108
386	11/21/2004	8:00:00	9.994	1.089
387	1/18/1979	8:00:00	9.878	1.062
388	1/5/1992	15:00:00	9.822	1.050
389	10/27/2004	15:00:00	9.754	1.034
390	1/7/2008	3:00:00	9.735	1.030
391	3/2/1992	10:00:00	9.725	1.027
392	3/1/1981	5:00:00	9.687	1.019
393	11/29/1985	15:00:00	9.679	1.017
394	5/2/1980	0:00:00	9.653	1.011
395	3/1/1991	11:00:00	9.620	1.004
396	2/8/1976	17:00:00	9.593	0.998
397	2/12/2005	11:00:00	9.492	0.975

347	1/7/1993	8:00:00	6.818	0.415
348	3/1/1983	15:00:00	6.787	0.410
349	1/9/1978	19:00:00	6.764	0.405
350	3/5/1995	12:00:00	6.759	0.404
351	1/25/1995	23:00:00	6.735	0.400
352	2/11/2003	17:00:00	6.726	0.398
353	3/10/1986	21:00:00	6.665	0.387
354	1/6/1993	22:00:00	6.649	0.384
355	12/11/1984	11:00:00	6.646	0.383
356	4/5/2006	1:00:00	6.641	0.382
357	12/6/1998	7:00:00	6.629	0.380
358	12/11/1984	10:00:00	6.579	0.371
359	2/1/1996	3:00:00	6.509	0.358
360	12/27/1984	4:00:00	6.504	0.357
361	11/24/1984	22:00:00	6.496	0.356
362	2/21/2005	7:00:00	6.449	0.347
363	3/5/1981	18:00:00	6.409	0.340
364	1/14/1990	5:00:00	6.396	0.337
365	12/18/1984	19:00:00	6.370	0.333
366	3/12/1995	0:00:00	6.303	0.321
367	1/5/1992	16:00:00	6.302	0.321
368	12/7/1992	15:00:00	6.293	0.319
369	2/28/2006	2:00:00	6.247	0.311
370	8/17/1977	1:00:00	6.246	0.311
371	1/31/1996	21:00:00	6.241	0.310
372	1/27/2008	3:00:00	6.224	0.307
373	2/7/1978	18:00:00	6.218	0.306
374	3/26/1991	3:00:00	6.211	0.304
375	1/26/1997	3:00:00	6.196	0.302
376	10/31/1987	18:00:00	6.149	0.294
377	1/11/2001	7:00:00	6.127	0.290
378	12/19/1978	7:00:00	6.118	0.288
379	1/6/1993	14:00:00	6.077	0.281
380	12/18/1984	17:00:00	6.064	0.279
381	1/10/1995	21:00:00	6.061	0.278
382	2/2/1998	16:00:00	6.057	0.278
383	1/14/1978	19:00:00	6.031	0.273
384	2/5/1976	17:00:00	5.981	0.265
385	2/20/1993	7:00:00	5.907	0.252
386	10/27/2004	15:00:00	5.854	0.243
387	1/7/2008	3:00:00	5.832	0.240
388	11/29/1985	15:00:00	5.795	0.233
389	1/18/1979	8:00:00	5.787	0.232
390	11/21/2004	8:00:00	5.777	0.230
391	3/1/1991	11:00:00	5.769	0.229
392	1/5/1992	15:00:00	5.749	0.226
393	2/12/2005	11:00:00	5.685	0.215
394	3/2/1992	10:00:00	5.680	0.215
395	3/1/1981	5:00:00	5.670	0.213
396	5/2/1980	0:00:00	5.667	0.213
397	2/5/1976	3:00:00	5.618	0.205

398	9/3/1976	17:00:00	9.428	0.961
399	2/5/1976	3:00:00	9.370	0.948
400	3/1/1991	6:00:00	9.339	0.941
401	1/7/2008	5:00:00	9.338	0.940
402	2/15/1986	9:00:00	9.257	0.922
403	3/1/1991	5:00:00	9.257	0.922
404	1/7/2005	14:00:00	9.087	0.885
405	9/25/1986	7:00:00	9.038	0.874
406	12/17/1987	7:00:00	8.999	0.865
407	3/6/1980	8:00:00	8.860	0.835
408	1/27/1983	9:00:00	8.835	0.829
409	12/11/1984	8:00:00	8.827	0.828
410	11/25/1985	10:00:00	8.800	0.822
411	10/19/2004	19:00:00	8.786	0.819
412	3/8/1975	13:00:00	8.760	0.813
413	8/17/1977	4:00:00	8.751	0.811
414	2/28/2006	8:00:00	8.713	0.803
415	1/6/1979	4:00:00	8.627	0.784
416	3/1/1991	2:00:00	8.623	0.783
417	2/2/1983	15:00:00	8.621	0.783
418	11/25/1985	9:00:00	8.589	0.776
419	10/20/1979	16:00:00	8.572	0.772
420	3/6/1975	12:00:00	8.534	0.764
421	2/7/1998	15:00:00	8.493	0.755
422	4/29/1980	1:00:00	8.421	0.740
423	4/20/1983	10:00:00	8.419	0.740
424	12/4/1974	13:00:00	8.410	0.738
425	2/13/1998	16:00:00	8.400	0.736
426	3/2/1983	22:00:00	8.388	0.733
427	12/30/1981	15:00:00	8.385	0.732
428	3/3/1983	5:00:00	8.376	0.730
429	1/10/1980	12:00:00	8.342	0.723
430	3/3/1983	9:00:00	8.330	0.721
431	3/5/1995	15:00:00	8.314	0.717
432	2/28/1983	2:00:00	8.301	0.715
433	1/16/1993	12:00:00	8.283	0.711
434	1/16/1993	13:00:00	8.256	0.705
435	1/11/2005	6:00:00	8.216	0.697
436	3/3/1983	3:00:00	8.208	0.695
437	1/11/2005	7:00:00	8.168	0.686
438	1/10/2005	1:00:00	8.051	0.662
439	2/12/2005	7:00:00	8.032	0.658
440	10/19/2004	14:00:00	8.013	0.654
441	11/1/1974	23:00:00	7.989	0.649
442	3/12/1986	14:00:00	7.939	0.639
443	12/25/2003	20:00:00	7.925	0.636
444	3/12/1986	13:00:00	7.923	0.635
445	1/7/1993	22:00:00	7.922	0.635
446	1/13/1993	23:00:00	7.882	0.627
447	1/9/2005	9:00:00	7.881	0.627
448	1/12/1995	14:00:00	7.866	0.623

398	2/8/1976	17:00:00	5.616	0.204
399	3/1/1991	6:00:00	5.599	0.202
400	1/7/2008	5:00:00	5.572	0.197
401	2/15/1986	9:00:00	5.547	0.193
402	3/1/1991	5:00:00	5.547	0.193
403	9/3/1976	17:00:00	5.470	0.181
404	9/25/1986	7:00:00	5.420	0.174
405	12/17/1987	7:00:00	5.307	0.157
406	1/7/2005	14:00:00	5.296	0.155
407	3/6/1980	8:00:00	5.293	0.155
408	1/27/1983	9:00:00	5.282	0.153
409	11/25/1985	10:00:00	5.275	0.152
410	10/19/2004	19:00:00	5.270	0.151
411	8/17/1977	4:00:00	5.252	0.149
412	12/11/1984	8:00:00	5.201	0.141
413	2/28/2006	8:00:00	5.198	0.141
414	1/6/1979	4:00:00	5.171	0.137
415	2/2/1983	15:00:00	5.163	0.136
416	11/25/1985	9:00:00	5.147	0.134
417	10/20/1979	16:00:00	5.136	0.132
418	3/1/1991	2:00:00	5.136	0.132
419	3/6/1975	12:00:00	5.123	0.130
420	3/8/1975	13:00:00	5.113	0.129
421	2/7/1998	15:00:00	5.089	0.125
422	12/4/1974	13:00:00	5.047	0.120
423	3/2/1983	22:00:00	5.028	0.117
424	12/30/1981	15:00:00	5.023	0.116
425	3/3/1983	5:00:00	5.020	0.116
426	2/13/1998	16:00:00	4.993	0.112
427	3/3/1983	9:00:00	4.987	0.111
428	3/5/1995	15:00:00	4.981	0.111
429	1/16/1993	12:00:00	4.970	0.109
430	2/28/1983	2:00:00	4.960	0.108
431	1/16/1993	13:00:00	4.950	0.106
432	1/11/2005	6:00:00	4.932	0.104
433	4/29/1980	1:00:00	4.911	0.101
434	3/3/1983	3:00:00	4.908	0.101
435	4/20/1983	10:00:00	4.908	0.101
436	1/11/2005	7:00:00	4.898	0.099
437	1/10/1980	12:00:00	4.868	0.096
438	1/10/2005	1:00:00	4.824	0.090
439	10/19/2004	14:00:00	4.791	0.086
440	3/12/1986	14:00:00	4.760	0.082
441	2/12/2005	7:00:00	4.756	0.081
442	12/25/2003	20:00:00	4.754	0.081
443	3/12/1986	13:00:00	4.750	0.081
444	1/7/1993	22:00:00	4.747	0.080
445	1/13/1993	23:00:00	4.734	0.079
446	1/9/2005	9:00:00	4.723	0.077
447	1/12/1995	14:00:00	4.713	0.076
448	1/7/1993	20:00:00	4.687	0.073

551	2/12/2005	14:00:00	5.813	0.236
552	3/10/1975	18:00:00	5.750	0.226
553	2/28/1991	16:00:00	5.735	0.224
554	3/10/1975	17:00:00	5.712	0.220
555	2/28/2006	10:00:00	5.685	0.215
556	3/16/1986	0:00:00	5.678	0.214
557	3/10/1975	16:00:00	5.668	0.213
558	2/28/2006	1:00:00	5.647	0.209
559	3/4/1978	22:00:00	5.630	0.207
560	1/17/1978	2:00:00	5.629	0.206
561	3/10/1975	15:00:00	5.619	0.205
562	2/16/1998	16:00:00	5.615	0.204
563	3/13/1996	10:00:00	5.612	0.204
564	2/19/1993	18:00:00	5.606	0.203
565	1/8/1974	7:00:00	5.595	0.201
566	2/20/1980	6:00:00	5.591	0.200
567	4/12/1999	4:00:00	5.579	0.199
568	1/9/2005	8:00:00	5.568	0.197
569	3/4/1978	21:00:00	5.552	0.194
570	3/10/1975	14:00:00	5.518	0.189
571	12/6/1986	18:00:00	5.512	0.188
572	1/17/1978	1:00:00	5.511	0.188
573	2/19/1980	17:00:00	5.510	0.188
574	3/1/1991	4:00:00	5.495	0.185
575	11/24/1978	12:00:00	5.483	0.183
576	1/15/1978	5:00:00	5.472	0.182
577	3/1/1991	3:00:00	5.459	0.180
578	12/29/1991	17:00:00	5.459	0.180
579	2/2/1983	16:00:00	5.446	0.178
580	1/17/1978	0:00:00	5.433	0.176
581	1/5/1974	11:00:00	5.389	0.169
582	12/16/1987	17:00:00	5.377	0.167
583	3/1/1976	20:00:00	5.367	0.166
584	3/6/1980	6:00:00	5.350	0.163
585	3/1/1981	13:00:00	5.343	0.162
586	4/2/1974	5:00:00	5.303	0.156
587	2/15/1986	8:00:00	5.294	0.155
588	2/19/1993	21:00:00	5.256	0.149
589	1/5/1974	10:00:00	5.255	0.149
590	12/26/1977	16:00:00	5.248	0.148
591	3/25/1994	2:00:00	5.214	0.143
592	2/11/1978	15:00:00	5.211	0.143
593	3/5/1981	19:00:00	5.202	0.141
594	3/11/1975	0:00:00	5.186	0.139
595	2/27/1991	22:00:00	5.182	0.139
596	1/18/1979	19:00:00	5.148	0.134
597	12/26/1977	14:00:00	5.115	0.129
598	2/15/1986	7:00:00	5.109	0.128
599	1/6/1992	0:00:00	5.105	0.128
600	3/10/1975	22:00:00	5.100	0.127
601	12/19/1987	17:00:00	5.100	0.127

602	2/7/1978	20:00:00	5.087	0.125
603	12/16/1987	15:00:00	5.067	0.122
604	2/7/1978	21:00:00	5.061	0.121
605	1/29/1980	21:00:00	5.056	0.121
606	2/21/1980	3:00:00	5.045	0.119
607	3/10/1975	20:00:00	5.043	0.119
608	11/24/1978	15:00:00	5.032	0.117
609	2/18/1980	2:00:00	4.999	0.113
610	1/7/2005	15:00:00	4.993	0.112
611	2/12/2003	16:00:00	4.988	0.111
612	3/2/1978	11:00:00	4.959	0.108
613	1/1/1977	15:00:00	4.953	0.107
614	2/27/1983	20:00:00	4.936	0.104
615	1/19/1980	4:00:00	4.932	0.104
616	12/26/1977	12:00:00	4.928	0.103
617	3/1/1981	8:00:00	4.926	0.103
618	2/18/1980	1:00:00	4.900	0.100
619	3/4/1978	20:00:00	4.857	0.094
620	3/3/1983	7:00:00	4.850	0.093
621	1/31/1979	15:00:00	4.849	0.093
622	1/5/1974	3:00:00	4.848	0.093
623	2/20/1980	0:00:00	4.842	0.092
624	1/11/2001	10:00:00	4.836	0.091
625	11/25/1985	8:00:00	4.831	0.091
626	2/7/1998	19:00:00	4.828	0.090
627	3/2/1992	16:00:00	4.822	0.090
628	1/18/1993	7:00:00	4.816	0.089
629	2/12/2005	3:00:00	4.798	0.087
630	1/11/1980	10:00:00	4.793	0.086
631	3/1/1981	7:00:00	4.790	0.086
632	2/7/1998	14:00:00	4.785	0.085
633	1/15/1978	0:00:00	4.770	0.083
634	3/25/1994	1:00:00	4.768	0.083
635	1/11/1980	8:00:00	4.750	0.081
636	4/18/1995	15:00:00	4.746	0.080
637	3/24/1983	22:00:00	4.745	0.080
638	1/11/1980	11:00:00	4.744	0.080
639	3/3/1983	4:00:00	4.730	0.078
640	3/2/1983	6:00:00	4.717	0.077
641	11/12/2003	10:00:00	4.710	0.076
642	12/19/1978	0:00:00	4.709	0.076
643	1/18/1979	9:00:00	4.696	0.074
644	2/8/1976	23:00:00	4.693	0.074
645	10/29/1974	6:00:00	4.686	0.073
646	3/1/1981	6:00:00	4.685	0.073
647	2/28/1991	17:00:00	4.668	0.071
648	3/8/1974	11:00:00	4.667	0.071
649	2/22/2005	19:00:00	4.653	0.069
650	3/11/1995	6:00:00	4.652	0.069
651	10/19/2004	15:00:00	4.652	0.069
652	1/18/1993	10:00:00	4.633	0.067

653	1/16/1993	14:00:00	4.594	0.062
654	1/12/1995	9:00:00	4.584	0.061
655	2/9/1976	0:00:00	4.581	0.061
656	11/23/1973	4:00:00	4.563	0.059
657	3/2/1978	6:00:00	4.559	0.058
658	2/8/1976	20:00:00	4.551	0.057
659	3/8/1974	10:00:00	4.548	0.057
660	3/8/1975	14:00:00	4.542	0.056
661	1/11/2001	6:00:00	4.538	0.056
662	3/4/1983	5:00:00	4.537	0.056
663	1/5/2008	12:00:00	4.517	0.054
664	12/26/1977	10:00:00	4.515	0.053
665	2/13/1978	22:00:00	4.510	0.053
666	1/15/1993	20:00:00	4.501	0.052
667	1/11/2001	9:00:00	4.501	0.052
668	1/15/1993	17:00:00	4.495	0.051
669	3/5/1995	14:00:00	4.495	0.051
670	3/1/1981	12:00:00	4.487	0.050
671	1/8/1974	1:00:00	4.481	0.050
672	1/15/1993	15:00:00	4.471	0.049
673	12/29/2004	5:00:00	4.455	0.047
674	2/8/1976	18:00:00	4.450	0.046
675	2/27/1983	17:00:00	4.449	0.046
676	1/16/1993	3:00:00	4.445	0.046
677	1/10/2005	0:00:00	4.438	0.045
678	1/15/1993	21:00:00	4.427	0.044
679	1/6/1978	15:00:00	4.424	0.044
680	1/11/1980	2:00:00	4.407	0.042
681	1/15/1993	18:00:00	4.396	0.041
682	3/8/1974	9:00:00	4.392	0.040
683	1/14/1978	21:00:00	4.356	0.037
684	11/2/1974	0:00:00	4.347	0.036
685	2/15/1992	14:00:00	4.314	0.033
686	1/29/1980	12:00:00	4.301	0.032
687	1/7/1993	23:00:00	4.299	0.031
688	1/7/1993	17:00:00	4.279	0.030
689	1/7/1993	21:00:00	4.276	0.029
690	2/2/1983	14:00:00	4.267	0.029
691	3/26/1991	4:00:00	4.267	0.029
692	1/7/1992	21:00:00	4.264	0.028
693	1/9/2005	0:00:00	4.250	0.027
694	1/14/1993	5:00:00	4.238	0.026
695	4/21/1988	20:00:00	4.213	0.024
696	11/24/1978	9:00:00	4.210	0.024
697	1/14/1993	4:00:00	4.196	0.022
698	2/18/2005	7:00:00	4.192	0.022
699	10/10/1986	2:00:00	4.190	0.022
700	2/23/2005	2:00:00	4.174	0.021
701	2/2/1998	18:00:00	4.171	0.020

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.250	(1/4)
3m/2	0.375	

SUMMARY

(a) ΣW_{PRE} :	1489
(b) ΣW_{POST} :	585
(c) SY_{RUSLE} :	1.101
(d) SY_{NHD} :	0.833

E_p :	0.393	[(b)/(a)]
S_p :	1.021	[0.7(c)+0.3(d)]

E_p / S_p :	0.4
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 10 - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		3.800		cfs
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	87.212	58.300
2	2/20/1980	19:00:00	79.938	52.428
3	10/22/1976	17:00:00	70.591	44.972
4	10/22/1976	16:00:00	58.864	35.789
5	9/10/1976	10:00:00	57.256	34.547
6	10/31/1987	19:00:00	55.128	32.912
7	2/7/1998	17:00:00	54.975	32.794
8	2/6/1992	20:00:00	52.856	31.175
9	1/9/2005	21:00:00	52.631	31.003
10	1/29/1980	7:00:00	50.194	29.154
11	2/19/1993	16:00:00	49.732	28.805
12	2/2/1998	17:00:00	48.405	27.804
13	10/20/2004	12:00:00	46.296	26.223
14	2/13/1998	17:00:00	45.420	25.570
15	10/27/2004	5:00:00	44.543	24.918
16	10/18/2004	13:00:00	44.491	24.879
17	3/6/1975	11:00:00	44.209	24.670
18	3/1/1983	16:00:00	41.849	22.927
19	1/31/1979	14:00:00	41.696	22.815
20	1/9/2005	20:00:00	41.416	22.609
21	3/2/1983	18:00:00	38.134	20.217
22	2/15/1992	15:00:00	37.333	19.639
23	2/21/2005	14:00:00	37.069	19.449
24	10/10/1986	0:00:00	36.703	19.186
25	8/17/1977	3:00:00	35.799	18.537
26	4/18/1995	12:00:00	35.162	18.083
27	12/4/1974	12:00:00	35.130	18.060
28	3/3/1983	1:00:00	34.409	17.547
29	1/18/1993	6:00:00	34.254	17.437
30	12/28/1977	8:00:00	33.932	17.209
31	1/13/1993	22:00:00	33.774	17.097
32	2/20/1980	20:00:00	33.502	16.905
33	3/4/1978	18:00:00	33.091	16.615
34	2/18/1980	5:00:00	32.939	16.507
35	4/23/1980	4:00:00	32.876	16.463
36	2/15/1986	4:00:00	32.733	16.363
37	1/31/1979	16:00:00	32.625	16.287
38	1/31/1979	13:00:00	32.268	16.036
39	2/16/1980	20:00:00	32.260	16.030
40	2/12/2003	17:00:00	31.744	15.669

Work Calculations, Post-Development Conditions				
Low flow Threshold:		3.800		cfs
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	52.287	30.742
2	2/20/1980	19:00:00	47.928	27.446
3	10/22/1976	17:00:00	42.320	23.274
4	10/22/1976	16:00:00	35.284	18.170
5	9/10/1976	10:00:00	34.326	17.488
6	10/31/1987	19:00:00	33.053	16.588
7	2/7/1998	17:00:00	32.961	16.523
8	2/6/1992	20:00:00	31.685	15.628
9	1/9/2005	21:00:00	31.556	15.538
10	1/29/1980	7:00:00	30.093	14.521
11	2/19/1993	16:00:00	29.814	14.328
12	2/2/1998	17:00:00	29.021	13.783
13	10/20/2004	12:00:00	27.753	12.917
14	2/13/1998	17:00:00	27.232	12.563
15	10/27/2004	5:00:00	26.691	12.198
16	10/18/2004	13:00:00	26.666	12.181
17	3/6/1975	11:00:00	26.495	12.066
18	3/1/1983	16:00:00	25.091	11.127
19	1/31/1979	14:00:00	25.000	11.067
20	1/9/2005	20:00:00	24.823	10.949
21	3/2/1983	18:00:00	22.863	9.663
22	2/15/1992	15:00:00	22.383	9.352
23	2/21/2005	14:00:00	22.225	9.250
24	10/10/1986	0:00:00	21.991	9.099
25	8/17/1977	3:00:00	21.462	8.760
26	4/18/1995	12:00:00	21.079	8.516
27	12/4/1974	12:00:00	21.055	8.501
28	3/3/1983	1:00:00	20.629	8.230
29	1/18/1993	6:00:00	20.522	8.163
30	12/28/1977	8:00:00	20.328	8.040
31	1/13/1993	22:00:00	20.250	7.991
32	2/20/1980	20:00:00	20.088	7.889
33	3/4/1978	18:00:00	19.835	7.731
34	2/18/1980	5:00:00	19.749	7.677
35	4/23/1980	4:00:00	19.685	7.637
36	2/15/1986	4:00:00	19.624	7.599
37	1/31/1979	16:00:00	19.559	7.559
38	1/31/1979	13:00:00	19.346	7.426
39	2/16/1980	20:00:00	19.342	7.424
40	2/12/2003	17:00:00	19.032	7.231

41	1/31/1979	8:00:00	30.974	15.132
42	3/3/1983	6:00:00	30.695	14.938
43	2/25/2003	17:00:00	29.832	14.341
44	1/9/1980	13:00:00	29.629	14.201
45	2/16/1998	17:00:00	28.951	13.735
46	5/1/1978	5:00:00	28.127	13.171
47	3/5/2005	0:00:00	28.096	13.150
48	10/20/2004	16:00:00	27.995	13.081
49	10/20/2004	15:00:00	27.937	13.042
50	10/27/2004	14:00:00	27.884	13.006
51	10/20/2004	13:00:00	27.822	12.963
52	2/15/1986	6:00:00	26.851	12.306
53	1/11/2005	4:00:00	26.725	12.221
54	11/25/1985	7:00:00	26.694	12.200
55	10/27/2004	8:00:00	26.538	12.095
56	12/29/2004	4:00:00	26.373	11.984
57	2/23/2005	4:00:00	26.354	11.971
58	2/15/1986	5:00:00	26.247	11.899
59	10/28/1974	12:00:00	26.197	11.866
60	3/16/1986	21:00:00	26.145	11.831
61	12/29/2004	2:00:00	25.870	11.646
62	1/25/1995	19:00:00	25.847	11.631
63	10/27/2004	7:00:00	25.805	11.603
64	10/19/2004	8:00:00	25.538	11.425
65	2/21/2005	11:00:00	25.457	11.371
66	3/21/1983	5:00:00	25.427	11.351
67	4/4/2006	23:00:00	25.178	11.185
68	3/11/1995	4:00:00	25.054	11.102
69	11/22/1996	3:00:00	24.975	11.050
70	11/12/2003	7:00:00	24.862	10.975
71	2/27/1978	22:00:00	24.714	10.877
72	10/28/1974	11:00:00	24.686	10.858
73	1/27/2008	2:00:00	24.574	10.784
74	10/27/2004	6:00:00	24.564	10.778
75	12/28/1977	13:00:00	24.562	10.776
76	12/25/2003	19:00:00	24.491	10.730
77	1/8/1998	17:00:00	24.373	10.652
78	2/13/1978	11:00:00	24.178	10.523
79	2/10/1978	6:00:00	24.136	10.495
80	2/10/1978	5:00:00	24.107	10.476
81	3/1/1981	14:00:00	23.983	10.395
82	2/19/1980	22:00:00	23.953	10.375
83	3/5/1995	20:00:00	23.939	10.366
84	1/15/1978	4:00:00	23.859	10.313
85	4/5/2006	7:00:00	23.779	10.261
86	12/28/2004	22:00:00	23.759	10.248
87	2/18/1980	9:00:00	23.725	10.225
88	10/27/2004	10:00:00	23.681	10.197
89	1/10/1978	8:00:00	23.564	10.120
90	3/5/1995	17:00:00	23.549	10.110
91	12/18/1988	14:00:00	23.495	10.075

41	1/31/1979	8:00:00	18.569	6.946
42	3/3/1983	6:00:00	18.403	6.844
43	2/25/2003	17:00:00	17.874	6.522
44	1/9/1980	13:00:00	17.738	6.439
45	2/16/1998	17:00:00	17.357	6.209
46	5/1/1978	5:00:00	16.850	5.906
47	3/5/2005	0:00:00	16.842	5.901
48	10/20/2004	16:00:00	16.786	5.868
49	10/20/2004	15:00:00	16.751	5.847
50	10/27/2004	14:00:00	16.691	5.811
51	10/20/2004	13:00:00	16.683	5.807
52	2/15/1986	6:00:00	16.098	5.461
53	1/11/2005	4:00:00	16.023	5.417
54	11/25/1985	7:00:00	16.000	5.403
55	10/27/2004	8:00:00	15.910	5.351
56	12/29/2004	4:00:00	15.811	5.293
57	2/23/2005	4:00:00	15.798	5.285
58	2/15/1986	5:00:00	15.736	5.249
59	10/28/1974	12:00:00	15.705	5.231
60	3/16/1986	21:00:00	15.659	5.204
61	12/29/2004	2:00:00	15.508	5.117
62	1/25/1995	19:00:00	15.486	5.104
63	10/27/2004	7:00:00	15.470	5.095
64	10/19/2004	8:00:00	15.305	4.999
65	2/21/2005	11:00:00	15.225	4.953
66	3/21/1983	5:00:00	15.194	4.935
67	4/4/2006	23:00:00	15.053	4.854
68	3/11/1995	4:00:00	14.996	4.821
69	11/22/1996	3:00:00	14.967	4.805
70	11/12/2003	7:00:00	14.904	4.769
71	10/28/1974	11:00:00	14.777	4.696
72	2/27/1978	22:00:00	14.765	4.689
73	10/27/2004	6:00:00	14.726	4.667
74	12/28/1977	13:00:00	14.696	4.650
75	1/27/2008	2:00:00	14.693	4.648
76	12/25/2003	19:00:00	14.632	4.614
77	1/8/1998	17:00:00	14.611	4.602
78	2/10/1978	6:00:00	14.471	4.522
79	2/10/1978	5:00:00	14.453	4.512
80	2/13/1978	11:00:00	14.453	4.512
81	3/1/1981	14:00:00	14.377	4.469
82	3/5/1995	20:00:00	14.352	4.455
83	2/19/1980	22:00:00	14.351	4.455
84	1/15/1978	4:00:00	14.304	4.428
85	2/18/1980	9:00:00	14.223	4.382
86	4/5/2006	7:00:00	14.213	4.377
87	10/27/2004	10:00:00	14.198	4.368
88	12/28/2004	22:00:00	14.198	4.368
89	3/5/1995	17:00:00	14.118	4.323
90	1/10/1978	8:00:00	14.081	4.303
91	1/29/1980	20:00:00	14.061	4.292

92	2/19/1980	16:00:00	23.479	10.064
93	1/29/1980	20:00:00	23.452	10.047
94	2/15/1986	3:00:00	23.438	10.038
95	1/11/1980	13:00:00	23.398	10.011
96	2/27/1983	19:00:00	23.383	10.002
97	3/1/1983	17:00:00	23.276	9.932
98	3/2/1983	19:00:00	23.275	9.931
99	3/2/1983	17:00:00	23.262	9.923
100	3/27/1998	17:00:00	23.237	9.906
101	1/29/1980	18:00:00	23.235	9.905
102	2/9/1976	1:00:00	23.173	9.865
103	2/8/1976	22:00:00	23.097	9.815
104	2/8/1976	21:00:00	23.051	9.785
105	3/11/2006	1:00:00	23.047	9.783
106	1/11/2005	5:00:00	23.022	9.766
107	1/11/1980	7:00:00	23.014	9.761
108	12/23/1982	1:00:00	22.925	9.703
109	2/26/1983	15:00:00	22.851	9.655
110	1/31/1979	12:00:00	22.802	9.623
111	2/16/1980	19:00:00	22.778	9.608
112	3/6/1980	5:00:00	22.756	9.593
113	11/12/2003	6:00:00	22.736	9.580
114	1/14/1978	20:00:00	22.428	9.381
115	12/18/1978	18:00:00	22.242	9.261
116	2/11/2005	16:00:00	22.212	9.242
117	2/21/2005	13:00:00	22.172	9.216
118	3/2/1992	15:00:00	22.085	9.160
119	2/7/1976	4:00:00	21.887	9.032
120	12/7/1992	17:00:00	21.855	9.012
121	2/1/1996	2:00:00	21.795	8.973
122	1/12/1997	17:00:00	21.670	8.893
123	10/14/2006	0:00:00	21.544	8.812
124	2/28/1978	20:00:00	21.491	8.779
125	3/16/1986	11:00:00	21.338	8.681
126	11/11/1985	11:00:00	21.230	8.612
127	2/14/1980	17:00:00	21.197	8.591
128	2/28/2006	0:00:00	21.172	8.575
129	1/12/2001	12:00:00	21.167	8.572
130	12/4/1987	22:00:00	20.956	8.438
131	1/7/2008	1:00:00	20.683	8.265
132	12/25/1988	1:00:00	20.677	8.261
133	11/20/1983	12:00:00	20.634	8.234
134	12/28/2004	19:00:00	20.468	8.129
135	10/20/2004	14:00:00	20.453	8.119
136	2/9/1981	2:00:00	20.432	8.106
137	11/30/2007	23:00:00	20.329	8.041
138	1/10/1995	20:00:00	20.318	8.034
139	1/31/1979	6:00:00	20.213	7.968
140	2/19/2007	13:00:00	20.131	7.916
141	3/13/1996	9:00:00	20.106	7.901
142	1/16/1979	2:00:00	20.066	7.876

92	2/15/1986	3:00:00	14.036	4.278
93	12/18/1988	14:00:00	14.033	4.276
94	2/19/1980	16:00:00	14.031	4.275
95	1/11/1980	13:00:00	14.029	4.274
96	2/27/1983	19:00:00	14.020	4.269
97	3/1/1983	17:00:00	13.956	4.233
98	3/2/1983	19:00:00	13.955	4.232
99	3/2/1983	17:00:00	13.946	4.227
100	3/27/1998	17:00:00	13.928	4.217
101	1/29/1980	18:00:00	13.917	4.211
102	2/9/1976	1:00:00	13.892	4.197
103	2/8/1976	22:00:00	13.849	4.173
104	2/8/1976	21:00:00	13.819	4.156
105	1/11/2005	5:00:00	13.804	4.148
106	3/11/2006	1:00:00	13.798	4.145
107	1/11/1980	7:00:00	13.784	4.137
108	12/23/1982	1:00:00	13.677	4.078
109	1/31/1979	12:00:00	13.669	4.073
110	2/26/1983	15:00:00	13.651	4.063
111	2/16/1980	19:00:00	13.641	4.058
112	11/12/2003	6:00:00	13.590	4.029
113	1/14/1978	20:00:00	13.445	3.949
114	3/6/1980	5:00:00	13.398	3.924
115	2/21/2005	13:00:00	13.293	3.866
116	12/18/1978	18:00:00	13.282	3.860
117	2/11/2005	16:00:00	13.254	3.845
118	3/2/1992	15:00:00	13.186	3.807
119	12/7/1992	17:00:00	13.095	3.758
120	2/7/1976	4:00:00	13.068	3.743
121	2/1/1996	2:00:00	13.057	3.737
122	1/12/1997	17:00:00	12.930	3.668
123	2/28/1978	20:00:00	12.884	3.643
124	3/16/1986	11:00:00	12.735	3.563
125	1/12/2001	12:00:00	12.685	3.536
126	11/11/1985	11:00:00	12.652	3.518
127	2/14/1980	17:00:00	12.649	3.516
128	10/14/2006	0:00:00	12.635	3.509
129	2/28/2006	0:00:00	12.615	3.498
130	12/25/1988	1:00:00	12.396	3.381
131	1/7/2008	1:00:00	12.388	3.377
132	11/20/1983	12:00:00	12.370	3.367
133	12/4/1987	22:00:00	12.331	3.346
134	10/20/2004	14:00:00	12.265	3.311
135	2/9/1981	2:00:00	12.244	3.300
136	12/28/2004	19:00:00	12.196	3.275
137	1/10/1995	20:00:00	12.132	3.241
138	11/30/2007	23:00:00	12.121	3.235
139	1/31/1979	6:00:00	12.110	3.229
140	2/19/2007	13:00:00	12.069	3.208
141	3/13/1996	9:00:00	12.044	3.195
142	3/5/1995	18:00:00	11.981	3.161

143	3/5/1995	18:00:00	19.983	7.824
144	3/6/1980	10:00:00	19.816	7.719
145	2/27/1983	18:00:00	19.651	7.616
146	10/27/2004	9:00:00	19.606	7.588
147	2/14/2001	17:00:00	19.569	7.565
148	10/10/1986	4:00:00	19.546	7.550
149	2/8/1994	7:00:00	19.391	7.454
150	4/15/1976	21:00:00	19.199	7.335
151	1/17/1990	3:00:00	19.094	7.270
152	1/6/2008	7:00:00	19.068	7.254
153	1/18/1993	14:00:00	19.038	7.235
154	3/18/1983	23:00:00	18.882	7.139
155	1/9/2005	5:00:00	18.871	7.132
156	2/5/1978	15:00:00	18.846	7.117
157	1/4/2005	4:00:00	18.816	7.098
158	2/23/2004	17:00:00	18.628	6.982
159	2/14/1995	11:00:00	18.520	6.916
160	2/21/2005	12:00:00	18.428	6.860
161	12/25/1988	0:00:00	18.409	6.848
162	11/11/1978	22:00:00	17.931	6.556
163	3/5/2005	1:00:00	17.888	6.530
164	10/28/1974	13:00:00	17.835	6.498
165	2/13/1992	6:00:00	17.820	6.489
166	12/18/1984	18:00:00	17.817	6.487
167	4/28/2005	23:00:00	17.798	6.476
168	3/15/1986	23:00:00	17.793	6.473
169	12/7/1992	14:00:00	17.695	6.413
170	2/8/1983	6:00:00	17.616	6.366
171	11/25/1985	1:00:00	17.613	6.364
172	1/29/1983	1:00:00	17.608	6.361
173	9/10/1976	9:00:00	17.587	6.348
174	3/24/1998	17:00:00	17.352	6.206
175	1/27/1983	11:00:00	17.216	6.125
176	3/1/1991	9:00:00	16.935	5.957
177	1/4/1974	20:00:00	16.892	5.931
178	3/1/1991	7:00:00	16.820	5.888
179	2/14/1995	10:00:00	16.735	5.837
180	5/9/1977	0:00:00	16.678	5.804
181	2/19/1993	17:00:00	16.529	5.715
182	4/20/1988	9:00:00	16.407	5.643
183	11/25/1983	0:00:00	16.405	5.642
184	3/5/1995	19:00:00	16.398	5.638
185	2/5/1976	2:00:00	16.376	5.625
186	3/11/2006	3:00:00	16.295	5.577
187	3/19/1981	23:00:00	16.128	5.479
188	3/22/2005	23:00:00	16.080	5.450
189	4/5/2006	2:00:00	15.975	5.389
190	11/20/1983	11:00:00	15.960	5.380
191	3/5/1995	16:00:00	15.947	5.372
192	12/18/1984	16:00:00	15.867	5.326
193	10/19/2004	16:00:00	15.861	5.322

143	1/16/1979	2:00:00	11.969	3.155
144	3/6/1980	10:00:00	11.876	3.106
145	2/27/1983	18:00:00	11.779	3.056
146	10/27/2004	9:00:00	11.755	3.043
147	2/14/2001	17:00:00	11.721	3.025
148	10/10/1986	4:00:00	11.696	3.012
149	2/8/1994	7:00:00	11.550	2.937
150	4/15/1976	21:00:00	11.423	2.871
151	1/17/1990	3:00:00	11.399	2.859
152	1/18/1993	14:00:00	11.376	2.847
153	1/6/2008	7:00:00	11.357	2.837
154	1/9/2005	5:00:00	11.304	2.810
155	1/4/2005	4:00:00	11.279	2.797
156	2/5/1978	15:00:00	11.269	2.792
157	3/18/1983	23:00:00	11.243	2.779
158	2/23/2004	17:00:00	11.155	2.734
159	2/14/1995	11:00:00	11.102	2.707
160	2/21/2005	12:00:00	11.050	2.681
161	12/25/1988	0:00:00	10.944	2.627
162	3/5/2005	1:00:00	10.724	2.517
163	10/28/1974	13:00:00	10.692	2.501
164	12/18/1984	18:00:00	10.680	2.495
165	11/11/1978	22:00:00	10.664	2.487
166	2/13/1992	6:00:00	10.653	2.482
167	12/7/1992	14:00:00	10.608	2.459
168	4/28/2005	23:00:00	10.579	2.445
169	3/15/1986	23:00:00	10.567	2.439
170	1/29/1983	1:00:00	10.475	2.393
171	2/8/1983	6:00:00	10.475	2.393
172	11/25/1985	1:00:00	10.460	2.386
173	9/10/1976	9:00:00	10.448	2.380
174	3/24/1998	17:00:00	10.370	2.342
175	1/27/1983	11:00:00	10.304	2.309
176	3/1/1991	9:00:00	10.153	2.236
177	3/1/1991	7:00:00	10.083	2.202
178	1/4/1974	20:00:00	10.008	2.166
179	5/9/1977	0:00:00	9.989	2.156
180	2/14/1995	10:00:00	9.936	2.131
181	2/19/1993	17:00:00	9.912	2.119
182	3/5/1995	19:00:00	9.832	2.081
183	4/20/1988	9:00:00	9.774	2.053
184	3/11/2006	3:00:00	9.753	2.043
185	2/5/1976	2:00:00	9.716	2.026
186	11/25/1983	0:00:00	9.666	2.002
187	3/22/2005	23:00:00	9.629	1.985
188	4/5/2006	2:00:00	9.576	1.960
189	3/19/1981	23:00:00	9.569	1.956
190	3/5/1995	16:00:00	9.559	1.952
191	11/20/1983	11:00:00	9.543	1.944
192	10/19/2004	16:00:00	9.509	1.928
193	9/25/1986	6:00:00	9.433	1.893

194	2/19/2007	12:00:00	15.769	5.268
195	2/27/1983	6:00:00	15.742	5.253
196	9/25/1986	6:00:00	15.741	5.252
197	1/16/1993	11:00:00	15.678	5.215
198	1/16/1993	10:00:00	15.672	5.212
199	12/17/2002	17:00:00	15.648	5.198
200	1/16/1993	9:00:00	15.639	5.193
201	1/11/2005	8:00:00	15.595	5.167
202	1/11/2005	3:00:00	15.569	5.152
203	11/8/2004	1:00:00	15.566	5.150
204	2/23/1998	17:00:00	15.530	5.129
205	2/26/2004	17:00:00	15.530	5.129
206	12/9/1996	19:00:00	15.526	5.127
207	1/15/1993	16:00:00	15.498	5.111
208	1/15/1993	14:00:00	15.481	5.101
209	12/27/1984	19:00:00	15.417	5.064
210	1/8/1993	0:00:00	15.382	5.044
211	3/2/1992	17:00:00	15.362	5.032
212	3/11/1975	14:00:00	15.311	5.003
213	1/8/1974	3:00:00	15.269	4.978
214	2/13/1978	13:00:00	15.243	4.963
215	2/13/1978	0:00:00	15.223	4.952
216	12/29/1976	14:00:00	15.194	4.935
217	11/12/2003	9:00:00	15.189	4.932
218	2/8/1983	7:00:00	15.173	4.923
219	1/7/1974	18:00:00	15.158	4.914
220	3/5/1978	8:00:00	15.147	4.908
221	2/23/2005	1:00:00	15.089	4.875
222	1/7/1993	4:00:00	15.062	4.859
223	1/7/1993	3:00:00	15.019	4.835
224	1/17/1978	3:00:00	15.001	4.824
225	3/12/1978	2:00:00	14.970	4.807
226	1/11/2001	8:00:00	14.940	4.789
227	3/12/1978	1:00:00	14.916	4.776
228	1/7/1993	0:00:00	14.916	4.776
229	3/12/1978	0:00:00	14.852	4.739
230	11/24/1978	13:00:00	14.846	4.736
231	2/21/1980	5:00:00	14.836	4.730
232	1/28/1980	22:00:00	14.792	4.705
233	12/4/1974	11:00:00	14.787	4.702
234	2/21/1980	1:00:00	14.740	4.675
235	1/15/1978	6:00:00	14.692	4.648
236	2/20/1980	18:00:00	14.618	4.606
237	2/1/1996	4:00:00	14.614	4.603
238	2/10/1978	4:00:00	14.497	4.537
239	1/15/1978	3:00:00	14.487	4.531
240	2/18/1980	6:00:00	14.407	4.486
241	1/15/1978	2:00:00	14.390	4.477
242	3/11/1986	2:00:00	14.380	4.471
243	1/6/1979	3:00:00	14.377	4.469
244	11/25/1985	4:00:00	14.343	4.450

194	12/18/1984	16:00:00	9.428	1.890
195	2/19/2007	12:00:00	9.425	1.889
196	2/27/1983	6:00:00	9.416	1.885
197	1/16/1993	11:00:00	9.400	1.877
198	1/16/1993	10:00:00	9.397	1.876
199	1/16/1993	9:00:00	9.373	1.865
200	1/11/2005	8:00:00	9.349	1.853
201	12/17/2002	17:00:00	9.347	1.852
202	1/11/2005	3:00:00	9.334	1.846
203	1/15/1993	16:00:00	9.289	1.826
204	1/15/1993	14:00:00	9.280	1.821
205	2/23/1998	17:00:00	9.273	1.818
206	2/26/2004	17:00:00	9.273	1.818
207	1/8/1993	0:00:00	9.220	1.794
208	3/2/1992	17:00:00	9.207	1.788
209	11/8/2004	1:00:00	9.207	1.788
210	12/9/1996	19:00:00	9.183	1.777
211	3/11/1975	14:00:00	9.171	1.771
212	1/8/1974	3:00:00	9.142	1.758
213	12/27/1984	19:00:00	9.139	1.756
214	2/13/1978	13:00:00	9.130	1.752
215	2/13/1978	0:00:00	9.124	1.750
216	2/8/1983	7:00:00	9.097	1.737
217	11/12/2003	9:00:00	9.094	1.736
218	1/7/1974	18:00:00	9.076	1.728
219	3/5/1978	8:00:00	9.069	1.724
220	12/29/1976	14:00:00	9.041	1.712
221	2/23/2005	1:00:00	9.036	1.709
222	1/7/1993	4:00:00	9.031	1.707
223	1/7/1993	3:00:00	9.003	1.694
224	1/17/1978	3:00:00	8.991	1.689
225	3/12/1978	2:00:00	8.975	1.682
226	1/11/2001	8:00:00	8.954	1.672
227	3/12/1978	1:00:00	8.943	1.667
228	1/7/1993	0:00:00	8.941	1.666
229	3/12/1978	0:00:00	8.904	1.649
230	11/24/1978	13:00:00	8.898	1.647
231	2/21/1980	5:00:00	8.881	1.639
232	12/4/1974	11:00:00	8.857	1.628
233	2/21/1980	1:00:00	8.821	1.612
234	1/15/1978	6:00:00	8.806	1.605
235	2/1/1996	4:00:00	8.761	1.585
236	1/28/1980	22:00:00	8.740	1.576
237	2/20/1980	18:00:00	8.738	1.575
238	1/15/1978	3:00:00	8.686	1.552
239	2/10/1978	4:00:00	8.664	1.542
240	2/18/1980	6:00:00	8.641	1.532
241	1/15/1978	2:00:00	8.627	1.526
242	11/25/1985	4:00:00	8.589	1.509
243	3/11/1986	2:00:00	8.571	1.501
244	1/15/1978	1:00:00	8.542	1.488

245	2/22/1998	17:00:00	14.277	4.413
246	1/15/1978	1:00:00	14.253	4.399
247	2/7/1978	19:00:00	14.224	4.383
248	1/14/1990	4:00:00	14.211	4.376
249	3/24/1983	4:00:00	14.190	4.364
250	3/5/1978	5:00:00	14.174	4.355
251	1/29/1980	19:00:00	14.128	4.329
252	2/18/1980	4:00:00	14.126	4.328
253	3/16/1986	17:00:00	14.104	4.316
254	1/29/1980	23:00:00	14.084	4.304
255	1/11/1980	12:00:00	14.051	4.286
256	1/4/1987	19:00:00	14.008	4.262
257	1/16/1978	23:00:00	14.004	4.260
258	1/27/1983	13:00:00	13.982	4.247
259	12/19/1978	9:00:00	13.973	4.242
260	1/31/1996	22:00:00	13.957	4.233
261	1/11/1980	9:00:00	13.923	4.214
262	1/5/1974	2:00:00	13.885	4.193
263	4/20/1983	12:00:00	13.884	4.193
264	1/18/1979	18:00:00	13.879	4.190
265	3/2/1978	10:00:00	13.849	4.173
266	1/28/2005	17:00:00	13.844	4.170
267	11/24/1978	7:00:00	13.838	4.167
268	3/2/1981	2:00:00	13.811	4.152
269	2/9/1976	3:00:00	13.769	4.129
270	1/29/1980	13:00:00	13.721	4.102
271	1/7/1993	16:00:00	13.690	4.085
272	2/8/1976	19:00:00	13.683	4.081
273	1/5/1974	1:00:00	13.673	4.075
274	3/5/1978	16:00:00	13.666	4.072
275	12/7/1992	13:00:00	13.662	4.069
276	12/3/1983	17:00:00	13.654	4.065
277	4/20/1983	11:00:00	13.587	4.028
278	3/11/2006	13:00:00	13.578	4.023
279	1/3/2005	10:00:00	13.570	4.018
280	11/4/1987	23:00:00	13.544	4.004
281	2/11/1978	12:00:00	13.511	3.986
282	1/19/1980	3:00:00	13.443	3.948
283	1/11/1980	1:00:00	13.420	3.936
284	1/5/1974	0:00:00	13.399	3.924
285	2/8/1994	8:00:00	13.386	3.917
286	2/19/2007	16:00:00	13.373	3.910
287	3/1/1978	11:00:00	13.313	3.877
288	2/12/2005	16:00:00	13.312	3.876
289	12/18/1978	23:00:00	13.303	3.871
290	2/7/1976	5:00:00	13.286	3.862
291	3/1/1991	10:00:00	13.281	3.859
292	12/20/2002	17:00:00	13.271	3.854
293	3/1/1978	9:00:00	13.188	3.808
294	3/1/1991	8:00:00	13.177	3.802
295	2/7/1998	16:00:00	13.153	3.789

245	2/7/1978	19:00:00	8.528	1.482
246	2/22/1998	17:00:00	8.503	1.471
247	1/6/1979	3:00:00	8.495	1.467
248	1/29/1980	19:00:00	8.473	1.458
249	3/24/1983	4:00:00	8.456	1.450
250	2/18/1980	4:00:00	8.451	1.448
251	3/5/1978	5:00:00	8.428	1.438
252	1/29/1980	23:00:00	8.426	1.437
253	1/11/1980	12:00:00	8.423	1.436
254	3/16/1986	17:00:00	8.402	1.427
255	1/31/1996	22:00:00	8.366	1.411
256	12/19/1978	9:00:00	8.362	1.409
257	1/27/1983	13:00:00	8.359	1.408
258	1/16/1978	23:00:00	8.356	1.407
259	1/14/1990	4:00:00	8.353	1.405
260	1/4/1987	19:00:00	8.349	1.404
261	1/11/1980	9:00:00	8.346	1.402
262	1/5/1974	2:00:00	8.324	1.393
263	4/20/1983	12:00:00	8.324	1.393
264	1/18/1979	18:00:00	8.285	1.376
265	3/2/1978	10:00:00	8.280	1.374
266	11/24/1978	7:00:00	8.272	1.370
267	2/9/1976	3:00:00	8.241	1.357
268	1/29/1980	13:00:00	8.223	1.349
269	3/2/1981	2:00:00	8.202	1.340
270	2/8/1976	19:00:00	8.201	1.340
271	1/5/1974	1:00:00	8.197	1.338
272	12/7/1992	13:00:00	8.186	1.333
273	4/20/1983	11:00:00	8.143	1.315
274	1/28/2005	17:00:00	8.138	1.313
275	3/5/1978	16:00:00	8.119	1.305
276	11/4/1987	23:00:00	8.118	1.304
277	3/11/2006	13:00:00	8.117	1.304
278	1/3/2005	10:00:00	8.116	1.304
279	1/7/1993	16:00:00	8.098	1.296
280	1/11/1980	1:00:00	8.035	1.269
281	1/5/1974	0:00:00	8.033	1.268
282	2/8/1994	8:00:00	8.026	1.265
283	12/3/1983	17:00:00	8.023	1.264
284	1/19/1980	3:00:00	8.014	1.260
285	2/19/2007	16:00:00	8.013	1.260
286	2/11/1978	12:00:00	8.007	1.257
287	3/1/1978	11:00:00	7.979	1.246
288	2/7/1976	5:00:00	7.968	1.241
289	3/1/1991	10:00:00	7.963	1.239
290	2/12/2005	16:00:00	7.957	1.236
291	12/18/1978	23:00:00	7.932	1.226
292	3/1/1978	9:00:00	7.908	1.216
293	3/1/1991	8:00:00	7.901	1.213
294	12/20/2002	17:00:00	7.893	1.209
295	2/7/1998	16:00:00	7.884	1.206

296	1/29/1980	9:00:00	13.115	3.769
297	3/1/1978	8:00:00	13.102	3.762
298	1/31/1979	10:00:00	13.092	3.756
299	3/11/1978	23:00:00	13.025	3.720
300	1/11/2005	2:00:00	13.010	3.711
301	3/1/1978	7:00:00	13.007	3.710
302	3/5/1995	22:00:00	12.999	3.705
303	1/4/1974	23:00:00	12.995	3.703
304	2/8/1993	21:00:00	12.966	3.688
305	3/24/1994	23:00:00	12.953	3.680
306	2/12/2005	8:00:00	12.952	3.680
307	3/5/1995	21:00:00	12.920	3.663
308	2/22/2008	7:00:00	12.877	3.639
309	11/23/1973	3:00:00	12.861	3.631
310	1/6/1992	12:00:00	12.861	3.631
311	12/5/2004	15:00:00	12.835	3.617
312	1/31/1979	9:00:00	12.817	3.607
313	2/27/1996	23:00:00	12.785	3.590
314	1/29/1980	5:00:00	12.670	3.528
315	11/23/1973	0:00:00	12.589	3.484
316	1/12/1993	16:00:00	12.566	3.472
317	2/6/1976	7:00:00	12.545	3.461
318	3/11/1995	7:00:00	12.544	3.460
319	3/10/1980	18:00:00	12.405	3.386
320	1/29/1980	4:00:00	12.391	3.378
321	3/28/1979	21:00:00	12.364	3.364
322	1/13/1993	21:00:00	12.339	3.351
323	4/7/1978	5:00:00	12.232	3.294
324	11/4/1987	19:00:00	12.154	3.253
325	1/12/1993	19:00:00	12.102	3.225
326	2/5/1978	18:00:00	12.057	3.201
327	3/2/1983	16:00:00	12.046	3.196
328	4/14/1998	17:00:00	11.928	3.134
329	1/5/1978	22:00:00	11.906	3.122
330	10/19/2004	18:00:00	11.883	3.110
331	12/29/2004	6:00:00	11.874	3.105
332	3/1/1978	6:00:00	11.869	3.103
333	4/2/1974	6:00:00	11.850	3.093
334	1/31/1979	7:00:00	11.845	3.090
335	1/15/1993	19:00:00	11.811	3.072
336	2/20/1980	5:00:00	11.791	3.062
337	11/24/1978	3:00:00	11.781	3.057
338	1/29/1980	2:00:00	11.711	3.020
339	1/9/2005	23:00:00	11.652	2.990
340	3/5/1995	13:00:00	11.604	2.965
341	1/4/1974	21:00:00	11.554	2.939
342	12/17/1978	23:00:00	11.549	2.936
343	3/16/1986	22:00:00	11.478	2.900
344	2/11/2003	17:00:00	11.451	2.886
345	1/9/1978	19:00:00	11.426	2.873
346	2/22/2005	22:00:00	11.423	2.871

296	3/1/1978	8:00:00	7.857	1.194
297	1/31/1979	10:00:00	7.848	1.191
298	1/29/1980	9:00:00	7.847	1.190
299	3/1/1978	7:00:00	7.800	1.171
300	3/5/1995	22:00:00	7.793	1.168
301	1/4/1974	23:00:00	7.786	1.165
302	2/12/2005	8:00:00	7.764	1.156
303	3/5/1995	21:00:00	7.748	1.149
304	2/8/1993	21:00:00	7.727	1.141
305	3/11/1978	23:00:00	7.710	1.134
306	3/24/1994	23:00:00	7.700	1.130
307	2/22/2008	7:00:00	7.698	1.129
308	1/31/1979	9:00:00	7.687	1.124
309	1/11/2005	2:00:00	7.676	1.120
310	12/5/2004	15:00:00	7.674	1.119
311	11/23/1973	3:00:00	7.672	1.118
312	2/27/1996	23:00:00	7.634	1.103
313	1/29/1980	5:00:00	7.596	1.087
314	1/6/1992	12:00:00	7.586	1.083
315	1/12/1993	16:00:00	7.519	1.056
316	3/11/1995	7:00:00	7.517	1.055
317	2/6/1976	7:00:00	7.496	1.047
318	1/29/1980	4:00:00	7.424	1.018
319	3/28/1979	21:00:00	7.410	1.012
320	3/10/1980	18:00:00	7.390	1.004
321	11/23/1973	0:00:00	7.348	0.988
322	4/7/1978	5:00:00	7.307	0.971
323	1/13/1993	21:00:00	7.270	0.957
324	11/4/1987	19:00:00	7.258	0.952
325	3/2/1983	16:00:00	7.214	0.935
326	2/5/1978	18:00:00	7.209	0.933
327	1/12/1993	19:00:00	7.190	0.926
328	12/29/2004	6:00:00	7.116	0.897
329	1/31/1979	7:00:00	7.102	0.892
330	4/2/1974	6:00:00	7.100	0.891
331	10/19/2004	18:00:00	7.100	0.891
332	1/15/1993	19:00:00	7.078	0.882
333	4/14/1998	17:00:00	7.053	0.873
334	3/1/1978	6:00:00	7.051	0.872
335	11/24/1978	3:00:00	7.025	0.862
336	1/29/1980	2:00:00	7.015	0.858
337	1/5/1978	22:00:00	7.010	0.856
338	1/9/2005	23:00:00	6.972	0.842
339	3/5/1995	13:00:00	6.956	0.836
340	2/20/1980	5:00:00	6.939	0.829
341	1/4/1974	21:00:00	6.925	0.824
342	3/16/1986	22:00:00	6.886	0.809
343	12/17/1978	23:00:00	6.849	0.796
344	2/22/2005	22:00:00	6.848	0.795
345	2/14/1995	12:00:00	6.831	0.789
346	1/29/1983	2:00:00	6.827	0.787

347	3/1/1983	15:00:00	11.407	2.863
348	2/14/1995	12:00:00	11.391	2.855
349	1/29/1983	2:00:00	11.385	2.852
350	1/7/1993	8:00:00	11.384	2.851
351	3/5/1995	12:00:00	11.282	2.799
352	12/6/1998	7:00:00	11.280	2.798
353	1/25/1995	23:00:00	11.239	2.777
354	4/5/2006	1:00:00	11.128	2.721
355	3/10/1986	21:00:00	11.124	2.718
356	1/6/1993	22:00:00	11.097	2.705
357	12/11/1984	11:00:00	11.085	2.699
358	12/11/1984	10:00:00	10.979	2.645
359	3/5/1981	18:00:00	10.915	2.613
360	12/27/1984	4:00:00	10.857	2.584
361	2/1/1996	3:00:00	10.852	2.581
362	11/24/1984	22:00:00	10.845	2.578
363	2/21/2005	7:00:00	10.758	2.534
364	3/12/1995	0:00:00	10.738	2.524
365	1/14/1990	5:00:00	10.678	2.494
366	8/17/1977	1:00:00	10.661	2.486
367	12/18/1984	19:00:00	10.621	2.466
368	1/31/1996	21:00:00	10.621	2.466
369	2/7/1978	18:00:00	10.595	2.453
370	1/5/1992	16:00:00	10.514	2.413
371	12/7/1992	15:00:00	10.493	2.402
372	10/31/1987	18:00:00	10.484	2.398
373	3/26/1991	3:00:00	10.449	2.381
374	12/19/1978	7:00:00	10.428	2.370
375	2/28/2006	2:00:00	10.427	2.370
376	1/27/2008	3:00:00	10.375	2.344
377	1/26/1997	3:00:00	10.344	2.329
378	1/14/1978	19:00:00	10.240	2.278
379	1/11/2001	7:00:00	10.233	2.275
380	1/6/1993	14:00:00	10.189	2.253
381	2/5/1976	17:00:00	10.132	2.226
382	2/2/1998	16:00:00	10.118	2.219
383	12/18/1984	17:00:00	10.113	2.216
384	1/10/1995	21:00:00	10.105	2.212
385	2/20/1993	7:00:00	10.079	2.200
386	11/21/2004	8:00:00	9.994	2.159
387	1/18/1979	8:00:00	9.878	2.103
388	1/5/1992	15:00:00	9.822	2.076
389	10/27/2004	15:00:00	9.754	2.044
390	1/7/2008	3:00:00	9.735	2.035
391	3/2/1992	10:00:00	9.725	2.030
392	3/1/1981	5:00:00	9.687	2.012
393	11/29/1985	15:00:00	9.679	2.008
394	5/2/1980	0:00:00	9.653	1.996
395	3/1/1991	11:00:00	9.620	1.980
396	2/8/1976	17:00:00	9.593	1.968
397	2/12/2005	11:00:00	9.492	1.920

347	1/7/1993	8:00:00	6.818	0.784
348	3/1/1983	15:00:00	6.787	0.772
349	1/9/1978	19:00:00	6.764	0.764
350	3/5/1995	12:00:00	6.759	0.762
351	1/25/1995	23:00:00	6.735	0.753
352	2/11/2003	17:00:00	6.726	0.750
353	3/10/1986	21:00:00	6.665	0.728
354	1/6/1993	22:00:00	6.649	0.722
355	12/11/1984	11:00:00	6.646	0.721
356	4/5/2006	1:00:00	6.641	0.719
357	12/6/1998	7:00:00	6.629	0.715
358	12/11/1984	10:00:00	6.579	0.696
359	2/1/1996	3:00:00	6.509	0.671
360	12/27/1984	4:00:00	6.504	0.670
361	11/24/1984	22:00:00	6.496	0.667
362	2/21/2005	7:00:00	6.449	0.650
363	3/5/1981	18:00:00	6.409	0.636
364	1/14/1990	5:00:00	6.396	0.631
365	12/18/1984	19:00:00	6.370	0.622
366	3/12/1995	0:00:00	6.303	0.599
367	1/5/1992	16:00:00	6.302	0.599
368	12/7/1992	15:00:00	6.293	0.596
369	2/28/2006	2:00:00	6.247	0.580
370	8/17/1977	1:00:00	6.246	0.580
371	1/31/1996	21:00:00	6.241	0.578
372	1/27/2008	3:00:00	6.224	0.572
373	2/7/1978	18:00:00	6.218	0.570
374	3/26/1991	3:00:00	6.211	0.568
375	1/26/1997	3:00:00	6.196	0.563
376	10/31/1987	18:00:00	6.149	0.547
377	1/11/2001	7:00:00	6.127	0.539
378	12/19/1978	7:00:00	6.118	0.536
379	1/6/1993	14:00:00	6.077	0.523
380	12/18/1984	17:00:00	6.064	0.518
381	1/10/1995	21:00:00	6.061	0.517
382	2/2/1998	16:00:00	6.057	0.516
383	1/14/1978	19:00:00	6.031	0.507
384	2/5/1976	17:00:00	5.981	0.491
385	2/20/1993	7:00:00	5.907	0.467
386	10/27/2004	15:00:00	5.854	0.450
387	1/7/2008	3:00:00	5.832	0.443
388	11/29/1985	15:00:00	5.795	0.431
389	1/18/1979	8:00:00	5.787	0.429
390	11/21/2004	8:00:00	5.777	0.426
391	3/1/1991	11:00:00	5.769	0.423
392	1/5/1992	15:00:00	5.749	0.417
393	2/12/2005	11:00:00	5.685	0.397
394	3/2/1992	10:00:00	5.680	0.396
395	3/1/1981	5:00:00	5.670	0.393
396	5/2/1980	0:00:00	5.667	0.392
397	2/5/1976	3:00:00	5.618	0.377

398	9/3/1976	17:00:00	9.428	1.890
399	2/5/1976	3:00:00	9.370	1.863
400	3/1/1991	6:00:00	9.339	1.849
401	1/7/2008	5:00:00	9.338	1.848
402	2/15/1986	9:00:00	9.257	1.811
403	3/1/1991	5:00:00	9.257	1.811
404	1/7/2005	14:00:00	9.087	1.733
405	9/25/1986	7:00:00	9.038	1.710
406	12/17/1987	7:00:00	8.999	1.693
407	3/6/1980	8:00:00	8.860	1.630
408	1/27/1983	9:00:00	8.835	1.618
409	12/11/1984	8:00:00	8.827	1.615
410	11/25/1985	10:00:00	8.800	1.603
411	10/19/2004	19:00:00	8.786	1.596
412	3/8/1975	13:00:00	8.760	1.585
413	8/17/1977	4:00:00	8.751	1.581
414	2/28/2006	8:00:00	8.713	1.564
415	1/6/1979	4:00:00	8.627	1.526
416	3/1/1991	2:00:00	8.623	1.524
417	2/2/1983	15:00:00	8.621	1.523
418	11/25/1985	9:00:00	8.589	1.509
419	10/20/1979	16:00:00	8.572	1.501
420	3/6/1975	12:00:00	8.534	1.485
421	2/7/1998	15:00:00	8.493	1.467
422	4/29/1980	1:00:00	8.421	1.435
423	4/20/1983	10:00:00	8.419	1.434
424	12/4/1974	13:00:00	8.410	1.430
425	2/13/1998	16:00:00	8.400	1.426
426	3/2/1983	22:00:00	8.388	1.421
427	12/30/1981	15:00:00	8.385	1.419
428	3/3/1983	5:00:00	8.376	1.415
429	1/10/1980	12:00:00	8.342	1.401
430	3/3/1983	9:00:00	8.330	1.395
431	3/5/1995	15:00:00	8.314	1.389
432	2/28/1983	2:00:00	8.301	1.383
433	1/16/1993	12:00:00	8.283	1.375
434	1/16/1993	13:00:00	8.256	1.363
435	1/11/2005	6:00:00	8.216	1.346
436	3/3/1983	3:00:00	8.208	1.343
437	1/11/2005	7:00:00	8.168	1.326
438	1/10/2005	1:00:00	8.051	1.276
439	2/12/2005	7:00:00	8.032	1.268
440	10/19/2004	14:00:00	8.013	1.260
441	11/1/1974	23:00:00	7.989	1.250
442	3/12/1986	14:00:00	7.939	1.229
443	12/25/2003	20:00:00	7.925	1.223
444	3/12/1986	13:00:00	7.923	1.222
445	1/7/1993	22:00:00	7.922	1.222
446	1/13/1993	23:00:00	7.882	1.205
447	1/9/2005	9:00:00	7.881	1.204
448	1/12/1995	14:00:00	7.866	1.198

398	2/8/1976	17:00:00	5.616	0.376
399	3/1/1991	6:00:00	5.599	0.371
400	1/7/2008	5:00:00	5.572	0.363
401	2/15/1986	9:00:00	5.547	0.356
402	3/1/1991	5:00:00	5.547	0.356
403	9/3/1976	17:00:00	5.470	0.333
404	9/25/1986	7:00:00	5.420	0.319
405	12/17/1987	7:00:00	5.307	0.287
406	1/7/2005	14:00:00	5.296	0.284
407	3/6/1980	8:00:00	5.293	0.283
408	1/27/1983	9:00:00	5.282	0.280
409	11/25/1985	10:00:00	5.275	0.278
410	10/19/2004	19:00:00	5.270	0.276
411	8/17/1977	4:00:00	5.252	0.271
412	12/11/1984	8:00:00	5.201	0.258
413	2/28/2006	8:00:00	5.198	0.257
414	1/6/1979	4:00:00	5.171	0.250
415	2/2/1983	15:00:00	5.163	0.247
416	11/25/1985	9:00:00	5.147	0.243
417	10/20/1979	16:00:00	5.136	0.240
418	3/1/1991	2:00:00	5.136	0.240
419	3/6/1975	12:00:00	5.123	0.237
420	3/8/1975	13:00:00	5.113	0.234
421	2/7/1998	15:00:00	5.089	0.228
422	12/4/1974	13:00:00	5.047	0.217
423	3/2/1983	22:00:00	5.028	0.212
424	12/30/1981	15:00:00	5.023	0.211
425	3/3/1983	5:00:00	5.020	0.210
426	2/13/1998	16:00:00	4.993	0.203
427	3/3/1983	9:00:00	4.987	0.202
428	3/5/1995	15:00:00	4.981	0.200
429	1/16/1993	12:00:00	4.970	0.198
430	2/28/1983	2:00:00	4.960	0.195
431	1/16/1993	13:00:00	4.950	0.193
432	1/11/2005	6:00:00	4.932	0.188
433	4/29/1980	1:00:00	4.911	0.183
434	3/3/1983	3:00:00	4.908	0.182
435	4/20/1983	10:00:00	4.908	0.182
436	1/11/2005	7:00:00	4.898	0.180
437	1/10/1980	12:00:00	4.868	0.173
438	1/10/2005	1:00:00	4.824	0.162
439	10/19/2004	14:00:00	4.791	0.155
440	3/12/1986	14:00:00	4.760	0.148
441	2/12/2005	7:00:00	4.756	0.147
442	12/25/2003	20:00:00	4.754	0.146
443	3/12/1986	13:00:00	4.750	0.145
444	1/7/1993	22:00:00	4.747	0.145
445	1/13/1993	23:00:00	4.734	0.142
446	1/9/2005	9:00:00	4.723	0.139
447	1/12/1995	14:00:00	4.713	0.137
448	1/7/1993	20:00:00	4.687	0.131

551	2/12/2005	14:00:00	5.813	0.437
552	3/10/1975	18:00:00	5.750	0.417
553	2/28/1991	16:00:00	5.735	0.413
554	3/10/1975	17:00:00	5.712	0.406
555	2/28/2006	10:00:00	5.685	0.397
556	3/16/1986	0:00:00	5.678	0.395
557	3/10/1975	16:00:00	5.668	0.392
558	2/28/2006	1:00:00	5.647	0.386
559	3/4/1978	22:00:00	5.630	0.381
560	1/17/1978	2:00:00	5.629	0.380
561	3/10/1975	15:00:00	5.619	0.377
562	2/16/1998	16:00:00	5.615	0.376
563	3/13/1996	10:00:00	5.612	0.375
564	2/19/1993	18:00:00	5.606	0.373
565	1/8/1974	7:00:00	5.595	0.370
566	2/20/1980	6:00:00	5.591	0.369
567	4/12/1999	4:00:00	5.579	0.365
568	1/9/2005	8:00:00	5.568	0.362
569	3/4/1978	21:00:00	5.552	0.357
570	3/10/1975	14:00:00	5.518	0.347
571	12/6/1986	18:00:00	5.512	0.345
572	1/17/1978	1:00:00	5.511	0.345
573	2/19/1980	17:00:00	5.510	0.345
574	3/1/1991	4:00:00	5.495	0.340
575	11/24/1978	12:00:00	5.483	0.337
576	1/15/1978	5:00:00	5.472	0.334
577	3/1/1991	3:00:00	5.459	0.330
578	12/29/1991	17:00:00	5.459	0.330
579	2/2/1983	16:00:00	5.446	0.326
580	1/17/1978	0:00:00	5.433	0.322
581	1/5/1974	11:00:00	5.389	0.310
582	12/16/1987	17:00:00	5.377	0.306
583	3/1/1976	20:00:00	5.367	0.303
584	3/6/1980	6:00:00	5.350	0.299
585	3/1/1981	13:00:00	5.343	0.297
586	4/2/1974	5:00:00	5.303	0.285
587	2/15/1986	8:00:00	5.294	0.283
588	2/19/1993	21:00:00	5.256	0.273
589	1/5/1974	10:00:00	5.255	0.272
590	12/26/1977	16:00:00	5.248	0.270
591	3/25/1994	2:00:00	5.214	0.261
592	2/11/1978	15:00:00	5.211	0.260
593	3/5/1981	19:00:00	5.202	0.258
594	3/11/1975	0:00:00	5.186	0.254
595	2/27/1991	22:00:00	5.182	0.252
596	1/18/1979	19:00:00	5.148	0.243
597	12/26/1977	14:00:00	5.115	0.235
598	2/15/1986	7:00:00	5.109	0.233
599	1/6/1992	0:00:00	5.105	0.232
600	3/10/1975	22:00:00	5.100	0.231
601	12/19/1987	17:00:00	5.100	0.231

602	2/7/1978	20:00:00	5.087	0.227
603	12/16/1987	15:00:00	5.067	0.222
604	2/7/1978	21:00:00	5.061	0.221
605	1/29/1980	21:00:00	5.056	0.219
606	2/21/1980	3:00:00	5.045	0.217
607	3/10/1975	20:00:00	5.043	0.216
608	11/24/1978	15:00:00	5.032	0.213
609	2/18/1980	2:00:00	4.999	0.205
610	1/7/2005	15:00:00	4.993	0.203
611	2/12/2003	16:00:00	4.988	0.202
612	3/2/1978	11:00:00	4.959	0.195
613	1/1/1977	15:00:00	4.953	0.193
614	2/27/1983	20:00:00	4.936	0.189
615	1/19/1980	4:00:00	4.932	0.188
616	12/26/1977	12:00:00	4.928	0.187
617	3/1/1981	8:00:00	4.926	0.187
618	2/18/1980	1:00:00	4.900	0.181
619	3/4/1978	20:00:00	4.857	0.170
620	3/3/1983	7:00:00	4.850	0.169
621	1/31/1979	15:00:00	4.849	0.168
622	1/5/1974	3:00:00	4.848	0.168
623	2/20/1980	0:00:00	4.842	0.167
624	1/11/2001	10:00:00	4.836	0.165
625	11/25/1985	8:00:00	4.831	0.164
626	2/7/1998	19:00:00	4.828	0.163
627	3/2/1992	16:00:00	4.822	0.162
628	1/18/1993	7:00:00	4.816	0.161
629	2/12/2005	3:00:00	4.798	0.156
630	1/11/1980	10:00:00	4.793	0.155
631	3/1/1981	7:00:00	4.790	0.155
632	2/7/1998	14:00:00	4.785	0.153
633	1/15/1978	0:00:00	4.770	0.150
634	3/25/1994	1:00:00	4.768	0.150
635	1/11/1980	8:00:00	4.750	0.145
636	4/18/1995	15:00:00	4.746	0.145
637	3/24/1983	22:00:00	4.745	0.144
638	1/11/1980	11:00:00	4.744	0.144
639	3/3/1983	4:00:00	4.730	0.141
640	3/2/1983	6:00:00	4.717	0.138
641	11/12/2003	10:00:00	4.710	0.136
642	12/19/1978	0:00:00	4.709	0.136
643	1/18/1979	9:00:00	4.696	0.133
644	2/8/1976	23:00:00	4.693	0.133
645	10/29/1974	6:00:00	4.686	0.131
646	3/1/1981	6:00:00	4.685	0.131
647	2/28/1991	17:00:00	4.668	0.127
648	3/8/1974	11:00:00	4.667	0.127
649	2/22/2005	19:00:00	4.653	0.124
650	3/11/1995	6:00:00	4.652	0.124
651	10/19/2004	15:00:00	4.652	0.124
652	1/18/1993	10:00:00	4.633	0.120

653	1/16/1993	14:00:00	4.594	0.112
654	1/12/1995	9:00:00	4.584	0.109
655	2/9/1976	0:00:00	4.581	0.109
656	11/23/1973	4:00:00	4.563	0.105
657	3/2/1978	6:00:00	4.559	0.104
658	2/8/1976	20:00:00	4.551	0.103
659	3/8/1974	10:00:00	4.548	0.102
660	3/8/1975	14:00:00	4.542	0.101
661	1/11/2001	6:00:00	4.538	0.100
662	3/4/1983	5:00:00	4.537	0.100
663	1/5/2008	12:00:00	4.517	0.096
664	12/26/1977	10:00:00	4.515	0.096
665	2/13/1978	22:00:00	4.510	0.095
666	1/15/1993	20:00:00	4.501	0.093
667	1/11/2001	9:00:00	4.501	0.093
668	1/15/1993	17:00:00	4.495	0.092
669	3/5/1995	14:00:00	4.495	0.092
670	3/1/1981	12:00:00	4.487	0.090
671	1/8/1974	1:00:00	4.481	0.089
672	1/15/1993	15:00:00	4.471	0.087
673	12/29/2004	5:00:00	4.455	0.084
674	2/8/1976	18:00:00	4.450	0.083
675	2/27/1983	17:00:00	4.449	0.083
676	1/16/1993	3:00:00	4.445	0.082
677	1/10/2005	0:00:00	4.438	0.081
678	1/15/1993	21:00:00	4.427	0.079
679	1/6/1978	15:00:00	4.424	0.078
680	1/11/1980	2:00:00	4.407	0.075
681	1/15/1993	18:00:00	4.396	0.073
682	3/8/1974	9:00:00	4.392	0.072
683	1/14/1978	21:00:00	4.356	0.066
684	11/2/1974	0:00:00	4.347	0.064
685	2/15/1992	14:00:00	4.314	0.059
686	1/29/1980	12:00:00	4.301	0.056
687	1/7/1993	23:00:00	4.299	0.056
688	1/7/1993	17:00:00	4.279	0.053
689	1/7/1993	21:00:00	4.276	0.052
690	2/2/1983	14:00:00	4.267	0.051
691	3/26/1991	4:00:00	4.267	0.051
692	1/7/1992	21:00:00	4.264	0.050
693	1/9/2005	0:00:00	4.250	0.048
694	1/14/1993	5:00:00	4.238	0.046
695	4/21/1988	20:00:00	4.213	0.042
696	11/24/1978	9:00:00	4.210	0.042
697	1/14/1993	4:00:00	4.196	0.040
698	2/18/2005	7:00:00	4.192	0.039
699	10/10/1986	2:00:00	4.190	0.039
700	2/23/2005	2:00:00	4.174	0.036
701	2/2/1998	18:00:00	4.171	0.036

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.308	(4/13)
3m/2	0.462	

SUMMARY

(a) ΣW_{PRE} :	3304
(b) ΣW_{POST} :	1243
(c) $S Y_{\text{RUSLE}}$:	1.101
(d) $S Y_{\text{NHD}}$:	0.833

E_p :	0.376	[(b)/(a)]
S_p :	1.021	[0.7(c)+0.3(d)]

E_p / S_p :	0.4
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

POC 10 - WORK CALCULATIONS

Work Calculations, Pre-Development Conditions				
Low flow Threshold:		3.800		cfs
Type of flow:		10% of Q_2		
Notes:				
- Lower limit = upper limit = average flow = Q_{pre} as hourly flows are used.				
- # of bins = # of flow values larger than threshold.				
Bin	Date	Hour	Q_{pre} (cfs)	W_{PRE}
1	1/4/1978	21:00:00	87.212	259.950
2	2/20/1980	19:00:00	79.938	228.769
3	10/22/1976	17:00:00	70.591	190.306
4	10/22/1976	16:00:00	58.864	144.867
5	9/10/1976	10:00:00	57.256	138.904
6	10/31/1987	19:00:00	55.128	131.117
7	2/7/1998	17:00:00	54.975	130.562
8	2/6/1992	20:00:00	52.856	122.941
9	1/9/2005	21:00:00	52.631	122.139
10	1/29/1980	7:00:00	50.194	113.547
11	2/19/1993	16:00:00	49.732	111.937
12	2/2/1998	17:00:00	48.405	107.350
13	10/20/2004	12:00:00	46.296	100.169
14	2/13/1998	17:00:00	45.420	97.228
15	10/27/2004	5:00:00	44.543	94.307
16	10/18/2004	13:00:00	44.491	94.134
17	3/6/1975	11:00:00	44.209	93.201
18	3/1/1983	16:00:00	41.849	85.492
19	1/31/1979	14:00:00	41.696	84.999
20	1/9/2005	20:00:00	41.416	84.098
21	3/2/1983	18:00:00	38.134	73.744
22	2/15/1992	15:00:00	37.333	71.276
23	2/21/2005	14:00:00	37.069	70.467
24	10/10/1986	0:00:00	36.703	69.351
25	8/17/1977	3:00:00	35.799	66.616
26	4/18/1995	12:00:00	35.162	64.707
27	12/4/1974	12:00:00	35.130	64.612
28	3/3/1983	1:00:00	34.409	62.471
29	1/18/1993	6:00:00	34.254	62.014
30	12/28/1977	8:00:00	33.932	61.067
31	1/13/1993	22:00:00	33.774	60.604
32	2/20/1980	20:00:00	33.502	59.808
33	3/4/1978	18:00:00	33.091	58.613
34	2/18/1980	5:00:00	32.939	58.172
35	4/23/1980	4:00:00	32.876	57.990
36	2/15/1986	4:00:00	32.733	57.577
37	1/31/1979	16:00:00	32.625	57.265
38	1/31/1979	13:00:00	32.268	56.239
39	2/16/1980	20:00:00	32.260	56.216
40	2/12/2003	17:00:00	31.744	54.743

Work Calculations, Post-Development Conditions				
Low flow Threshold:		3.800		cfs
Type of flow:		10% of Q_2		
- Duration of flows: 1 hr.				
- Date & hour provide if verification is desired.				
Bin	Date	Hour	Q_{post} (cfs)	W_{POST}
1	1/4/1978	21:00:00	52.287	120.916
2	2/20/1980	19:00:00	47.928	105.714
3	10/22/1976	17:00:00	42.320	87.016
4	10/22/1976	16:00:00	35.284	65.071
5	9/10/1976	10:00:00	34.326	62.226
6	10/31/1987	19:00:00	33.053	58.502
7	2/7/1998	17:00:00	32.961	58.236
8	2/6/1992	20:00:00	31.685	54.575
9	1/9/2005	21:00:00	31.556	54.208
10	1/29/1980	7:00:00	30.093	50.104
11	2/19/1993	16:00:00	29.814	49.332
12	2/2/1998	17:00:00	29.021	47.157
13	10/20/2004	12:00:00	27.753	43.739
14	2/13/1998	17:00:00	27.232	42.356
15	10/27/2004	5:00:00	26.691	40.934
16	10/18/2004	13:00:00	26.666	40.868
17	3/6/1975	11:00:00	26.495	40.422
18	3/1/1983	16:00:00	25.091	36.813
19	1/31/1979	14:00:00	25.000	36.583
20	1/9/2005	20:00:00	24.823	36.135
21	3/2/1983	18:00:00	22.863	31.296
22	2/15/1992	15:00:00	22.383	30.142
23	2/21/2005	14:00:00	22.225	29.766
24	10/10/1986	0:00:00	21.991	29.210
25	8/17/1977	3:00:00	21.462	27.966
26	4/18/1995	12:00:00	21.079	27.076
27	12/4/1974	12:00:00	21.055	27.020
28	3/3/1983	1:00:00	20.629	26.040
29	1/18/1993	6:00:00	20.522	25.796
30	12/28/1977	8:00:00	20.328	25.355
31	1/13/1993	22:00:00	20.250	25.178
32	2/20/1980	20:00:00	20.088	24.812
33	3/4/1978	18:00:00	19.835	24.244
34	2/18/1980	5:00:00	19.749	24.052
35	4/23/1980	4:00:00	19.685	23.909
36	2/15/1986	4:00:00	19.624	23.773
37	1/31/1979	16:00:00	19.559	23.629
38	1/31/1979	13:00:00	19.346	23.157
39	2/16/1980	20:00:00	19.342	23.148
40	2/12/2003	17:00:00	19.032	22.467

41	1/31/1979	8:00:00	30.974	52.565
42	3/3/1983	6:00:00	30.695	51.782
43	2/25/2003	17:00:00	29.832	49.382
44	1/9/1980	13:00:00	29.629	48.822
45	2/16/1998	17:00:00	28.951	46.966
46	5/1/1978	5:00:00	28.127	44.739
47	3/5/2005	0:00:00	28.096	44.656
48	10/20/2004	16:00:00	27.995	44.385
49	10/20/2004	15:00:00	27.937	44.230
50	10/27/2004	14:00:00	27.884	44.088
51	10/20/2004	13:00:00	27.822	43.923
52	2/15/1986	6:00:00	26.851	41.353
53	1/11/2005	4:00:00	26.725	41.023
54	11/25/1985	7:00:00	26.694	40.942
55	10/27/2004	8:00:00	26.538	40.534
56	12/29/2004	4:00:00	26.373	40.105
57	2/23/2005	4:00:00	26.354	40.055
58	2/15/1986	5:00:00	26.247	39.778
59	10/28/1974	12:00:00	26.197	39.648
60	3/16/1986	21:00:00	26.145	39.513
61	12/29/2004	2:00:00	25.870	38.803
62	1/25/1995	19:00:00	25.847	38.744
63	10/27/2004	7:00:00	25.805	38.636
64	10/19/2004	8:00:00	25.538	37.951
65	2/21/2005	11:00:00	25.457	37.744
66	3/21/1983	5:00:00	25.427	37.668
67	4/4/2006	23:00:00	25.178	37.034
68	3/11/1995	4:00:00	25.054	36.719
69	11/22/1996	3:00:00	24.975	36.519
70	11/12/2003	7:00:00	24.862	36.234
71	2/27/1978	22:00:00	24.714	35.861
72	10/28/1974	11:00:00	24.686	35.791
73	1/27/2008	2:00:00	24.574	35.509
74	10/27/2004	6:00:00	24.564	35.484
75	12/28/1977	13:00:00	24.562	35.479
76	12/25/2003	19:00:00	24.491	35.301
77	1/8/1998	17:00:00	24.373	35.006
78	2/13/1978	11:00:00	24.178	34.520
79	2/10/1978	6:00:00	24.136	34.416
80	2/10/1978	5:00:00	24.107	34.344
81	3/1/1981	14:00:00	23.983	34.036
82	2/19/1980	22:00:00	23.953	33.962
83	3/5/1995	20:00:00	23.939	33.927
84	1/15/1978	4:00:00	23.859	33.729
85	4/5/2006	7:00:00	23.779	33.532
86	12/28/2004	22:00:00	23.759	33.483
87	2/18/1980	9:00:00	23.725	33.399
88	10/27/2004	10:00:00	23.681	33.290
89	1/10/1978	8:00:00	23.564	33.003
90	3/5/1995	17:00:00	23.549	32.966
91	12/18/1988	14:00:00	23.495	32.834

41	1/31/1979	8:00:00	18.569	21.462
42	3/3/1983	6:00:00	18.403	21.105
43	2/25/2003	17:00:00	17.874	19.979
44	1/9/1980	13:00:00	17.738	19.693
45	2/16/1998	17:00:00	17.357	18.898
46	5/1/1978	5:00:00	16.850	17.855
47	3/5/2005	0:00:00	16.842	17.839
48	10/20/2004	16:00:00	16.786	17.725
49	10/20/2004	15:00:00	16.751	17.654
50	10/27/2004	14:00:00	16.691	17.532
51	10/20/2004	13:00:00	16.683	17.516
52	2/15/1986	6:00:00	16.098	16.343
53	1/11/2005	4:00:00	16.023	16.195
54	11/25/1985	7:00:00	16.000	16.149
55	10/27/2004	8:00:00	15.910	15.972
56	12/29/2004	4:00:00	15.811	15.777
57	2/23/2005	4:00:00	15.798	15.752
58	2/15/1986	5:00:00	15.736	15.630
59	10/28/1974	12:00:00	15.705	15.570
60	3/16/1986	21:00:00	15.659	15.480
61	12/29/2004	2:00:00	15.508	15.186
62	1/25/1995	19:00:00	15.486	15.144
63	10/27/2004	7:00:00	15.470	15.113
64	10/19/2004	8:00:00	15.305	14.795
65	2/21/2005	11:00:00	15.225	14.641
66	3/21/1983	5:00:00	15.194	14.582
67	4/4/2006	23:00:00	15.053	14.313
68	3/11/1995	4:00:00	14.996	14.204
69	11/22/1996	3:00:00	14.967	14.149
70	11/12/2003	7:00:00	14.904	14.030
71	10/28/1974	11:00:00	14.777	13.791
72	2/27/1978	22:00:00	14.765	13.768
73	10/27/2004	6:00:00	14.726	13.695
74	12/28/1977	13:00:00	14.696	13.639
75	1/27/2008	2:00:00	14.693	13.633
76	12/25/2003	19:00:00	14.632	13.519
77	1/8/1998	17:00:00	14.611	13.480
78	2/10/1978	6:00:00	14.471	13.219
79	2/10/1978	5:00:00	14.453	13.186
80	2/13/1978	11:00:00	14.453	13.186
81	3/1/1981	14:00:00	14.377	13.045
82	3/5/1995	20:00:00	14.352	12.999
83	2/19/1980	22:00:00	14.351	12.997
84	1/15/1978	4:00:00	14.304	12.910
85	2/18/1980	9:00:00	14.223	12.761
86	4/5/2006	7:00:00	14.213	12.743
87	10/27/2004	10:00:00	14.198	12.716
88	12/28/2004	22:00:00	14.198	12.716
89	3/5/1995	17:00:00	14.118	12.569
90	1/10/1978	8:00:00	14.081	12.502
91	1/29/1980	20:00:00	14.061	12.465

92	2/19/1980	16:00:00	23.479	32.794
93	1/29/1980	20:00:00	23.452	32.728
94	2/15/1986	3:00:00	23.438	32.694
95	1/11/1980	13:00:00	23.398	32.596
96	2/27/1983	19:00:00	23.383	32.559
97	3/1/1983	17:00:00	23.276	32.298
98	3/2/1983	19:00:00	23.275	32.296
99	3/2/1983	17:00:00	23.262	32.264
100	3/27/1998	17:00:00	23.237	32.203
101	1/29/1980	18:00:00	23.235	32.198
102	2/9/1976	1:00:00	23.173	32.047
103	2/8/1976	22:00:00	23.097	31.863
104	2/8/1976	21:00:00	23.051	31.751
105	3/11/2006	1:00:00	23.047	31.741
106	1/11/2005	5:00:00	23.022	31.681
107	1/11/1980	7:00:00	23.014	31.661
108	12/23/1982	1:00:00	22.925	31.446
109	2/26/1983	15:00:00	22.851	31.267
110	1/31/1979	12:00:00	22.802	31.148
111	2/16/1980	19:00:00	22.778	31.090
112	3/6/1980	5:00:00	22.756	31.037
113	11/12/2003	6:00:00	22.736	30.989
114	1/14/1978	20:00:00	22.428	30.250
115	12/18/1978	18:00:00	22.242	29.806
116	2/11/2005	16:00:00	22.212	29.735
117	2/21/2005	13:00:00	22.172	29.639
118	3/2/1992	15:00:00	22.085	29.433
119	2/7/1976	4:00:00	21.887	28.964
120	12/7/1992	17:00:00	21.855	28.889
121	2/1/1996	2:00:00	21.795	28.747
122	1/12/1997	17:00:00	21.670	28.453
123	10/14/2006	0:00:00	21.544	28.158
124	2/28/1978	20:00:00	21.491	28.034
125	3/16/1986	11:00:00	21.338	27.677
126	11/11/1985	11:00:00	21.230	27.426
127	2/14/1980	17:00:00	21.197	27.349
128	2/28/2006	0:00:00	21.172	27.291
129	1/12/2001	12:00:00	21.167	27.279
130	12/4/1987	22:00:00	20.956	26.791
131	1/7/2008	1:00:00	20.683	26.164
132	12/25/1988	1:00:00	20.677	26.150
133	11/20/1983	12:00:00	20.634	26.052
134	12/28/2004	19:00:00	20.468	25.673
135	10/20/2004	14:00:00	20.453	25.639
136	2/9/1981	2:00:00	20.432	25.591
137	11/30/2007	23:00:00	20.329	25.357
138	1/10/1995	20:00:00	20.318	25.332
139	1/31/1979	6:00:00	20.213	25.094
140	2/19/2007	13:00:00	20.131	24.909
141	3/13/1996	9:00:00	20.106	24.853
142	1/16/1979	2:00:00	20.066	24.763

92	2/15/1986	3:00:00	14.036	12.420
93	12/18/1988	14:00:00	14.033	12.414
94	2/19/1980	16:00:00	14.031	12.411
95	1/11/1980	13:00:00	14.029	12.407
96	2/27/1983	19:00:00	14.020	12.391
97	3/1/1983	17:00:00	13.956	12.274
98	3/2/1983	19:00:00	13.955	12.273
99	3/2/1983	17:00:00	13.946	12.256
100	3/27/1998	17:00:00	13.928	12.224
101	1/29/1980	18:00:00	13.917	12.204
102	2/9/1976	1:00:00	13.892	12.159
103	2/8/1976	22:00:00	13.849	12.081
104	2/8/1976	21:00:00	13.819	12.027
105	1/11/2005	5:00:00	13.804	12.000
106	3/11/2006	1:00:00	13.798	11.989
107	1/11/1980	7:00:00	13.784	11.964
108	12/23/1982	1:00:00	13.677	11.772
109	1/31/1979	12:00:00	13.669	11.758
110	2/26/1983	15:00:00	13.651	11.726
111	2/16/1980	19:00:00	13.641	11.708
112	11/12/2003	6:00:00	13.590	11.617
113	1/14/1978	20:00:00	13.445	11.359
114	3/6/1980	5:00:00	13.398	11.276
115	2/21/2005	13:00:00	13.293	11.091
116	12/18/1978	18:00:00	13.282	11.072
117	2/11/2005	16:00:00	13.254	11.023
118	3/2/1992	15:00:00	13.186	10.904
119	12/7/1992	17:00:00	13.095	10.746
120	2/7/1976	4:00:00	13.068	10.699
121	2/1/1996	2:00:00	13.057	10.680
122	1/12/1997	17:00:00	12.930	10.460
123	2/28/1978	20:00:00	12.884	10.381
124	3/16/1986	11:00:00	12.735	10.126
125	1/12/2001	12:00:00	12.685	10.041
126	11/11/1985	11:00:00	12.652	9.985
127	2/14/1980	17:00:00	12.649	9.980
128	10/14/2006	0:00:00	12.635	9.956
129	2/28/2006	0:00:00	12.615	9.922
130	12/25/1988	1:00:00	12.396	9.553
131	1/7/2008	1:00:00	12.388	9.540
132	11/20/1983	12:00:00	12.370	9.510
133	12/4/1987	22:00:00	12.331	9.445
134	10/20/2004	14:00:00	12.265	9.335
135	2/9/1981	2:00:00	12.244	9.300
136	12/28/2004	19:00:00	12.196	9.221
137	1/10/1995	20:00:00	12.132	9.115
138	11/30/2007	23:00:00	12.121	9.097
139	1/31/1979	6:00:00	12.110	9.079
140	2/19/2007	13:00:00	12.069	9.011
141	3/13/1996	9:00:00	12.044	8.970
142	3/5/1995	18:00:00	11.981	8.867

143	3/5/1995	18:00:00	19.983	24.576
144	3/6/1980	10:00:00	19.816	24.202
145	2/27/1983	18:00:00	19.651	23.833
146	10/27/2004	9:00:00	19.606	23.733
147	2/14/2001	17:00:00	19.569	23.651
148	10/10/1986	4:00:00	19.546	23.600
149	2/8/1994	7:00:00	19.391	23.257
150	4/15/1976	21:00:00	19.199	22.834
151	1/17/1990	3:00:00	19.094	22.603
152	1/6/2008	7:00:00	19.068	22.546
153	1/18/1993	14:00:00	19.038	22.481
154	3/18/1983	23:00:00	18.882	22.140
155	1/9/2005	5:00:00	18.871	22.116
156	2/5/1978	15:00:00	18.846	22.062
157	1/4/2005	4:00:00	18.816	21.997
158	2/23/2004	17:00:00	18.628	21.589
159	2/14/1995	11:00:00	18.520	21.356
160	2/21/2005	12:00:00	18.428	21.159
161	12/25/1988	0:00:00	18.409	21.118
162	11/11/1978	22:00:00	17.931	20.100
163	3/5/2005	1:00:00	17.888	20.009
164	10/28/1974	13:00:00	17.835	19.897
165	2/13/1992	6:00:00	17.820	19.865
166	12/18/1984	18:00:00	17.817	19.859
167	4/28/2005	23:00:00	17.798	19.819
168	3/15/1986	23:00:00	17.793	19.809
169	12/7/1992	14:00:00	17.695	19.603
170	2/8/1983	6:00:00	17.616	19.437
171	11/25/1985	1:00:00	17.613	19.431
172	1/29/1983	1:00:00	17.608	19.421
173	9/10/1976	9:00:00	17.587	19.377
174	3/24/1998	17:00:00	17.352	18.887
175	1/27/1983	11:00:00	17.216	18.606
176	3/1/1991	9:00:00	16.935	18.029
177	1/4/1974	20:00:00	16.892	17.941
178	3/1/1991	7:00:00	16.820	17.794
179	2/14/1995	10:00:00	16.735	17.621
180	5/9/1977	0:00:00	16.678	17.506
181	2/19/1993	17:00:00	16.529	17.205
182	4/20/1988	9:00:00	16.407	16.960
183	11/25/1983	0:00:00	16.405	16.956
184	3/5/1995	19:00:00	16.398	16.941
185	2/5/1976	2:00:00	16.376	16.897
186	3/11/2006	3:00:00	16.295	16.735
187	3/19/1981	23:00:00	16.128	16.403
188	3/22/2005	23:00:00	16.080	16.308
189	4/5/2006	2:00:00	15.975	16.100
190	11/20/1983	11:00:00	15.960	16.070
191	3/5/1995	16:00:00	15.947	16.045
192	12/18/1984	16:00:00	15.867	15.887
193	10/19/2004	16:00:00	15.861	15.875

143	1/16/1979	2:00:00	11.969	8.847
144	3/6/1980	10:00:00	11.876	8.696
145	2/27/1983	18:00:00	11.779	8.539
146	10/27/2004	9:00:00	11.755	8.500
147	2/14/2001	17:00:00	11.721	8.446
148	10/10/1986	4:00:00	11.696	8.405
149	2/8/1994	7:00:00	11.550	8.172
150	4/15/1976	21:00:00	11.423	7.971
151	1/17/1990	3:00:00	11.399	7.933
152	1/18/1993	14:00:00	11.376	7.897
153	1/6/2008	7:00:00	11.357	7.867
154	1/9/2005	5:00:00	11.304	7.784
155	1/4/2005	4:00:00	11.279	7.744
156	2/5/1978	15:00:00	11.269	7.729
157	3/18/1983	23:00:00	11.243	7.688
158	2/23/2004	17:00:00	11.155	7.551
159	2/14/1995	11:00:00	11.102	7.469
160	2/21/2005	12:00:00	11.050	7.389
161	12/25/1988	0:00:00	10.944	7.226
162	3/5/2005	1:00:00	10.724	6.893
163	10/28/1974	13:00:00	10.692	6.845
164	12/18/1984	18:00:00	10.680	6.827
165	11/11/1978	22:00:00	10.664	6.803
166	2/13/1992	6:00:00	10.653	6.786
167	12/7/1992	14:00:00	10.608	6.719
168	4/28/2005	23:00:00	10.579	6.676
169	3/15/1986	23:00:00	10.567	6.658
170	1/29/1983	1:00:00	10.475	6.521
171	2/8/1983	6:00:00	10.475	6.521
172	11/25/1985	1:00:00	10.460	6.499
173	9/10/1976	9:00:00	10.448	6.481
174	3/24/1998	17:00:00	10.370	6.367
175	1/27/1983	11:00:00	10.304	6.270
176	3/1/1991	9:00:00	10.153	6.051
177	3/1/1991	7:00:00	10.083	5.950
178	1/4/1974	20:00:00	10.008	5.843
179	5/9/1977	0:00:00	9.989	5.816
180	2/14/1995	10:00:00	9.936	5.741
181	2/19/1993	17:00:00	9.912	5.707
182	3/5/1995	19:00:00	9.832	5.594
183	4/20/1988	9:00:00	9.774	5.512
184	3/11/2006	3:00:00	9.753	5.483
185	2/5/1976	2:00:00	9.716	5.432
186	11/25/1983	0:00:00	9.666	5.362
187	3/22/2005	23:00:00	9.629	5.311
188	4/5/2006	2:00:00	9.576	5.238
189	3/19/1981	23:00:00	9.569	5.228
190	3/5/1995	16:00:00	9.559	5.214
191	11/20/1983	11:00:00	9.543	5.193
192	10/19/2004	16:00:00	9.509	5.146
193	9/25/1986	6:00:00	9.433	5.042

194	2/19/2007	12:00:00	15.769	15.695
195	2/27/1983	6:00:00	15.742	15.642
196	9/25/1986	6:00:00	15.741	15.640
197	1/16/1993	11:00:00	15.678	15.517
198	1/16/1993	10:00:00	15.672	15.505
199	12/17/2002	17:00:00	15.648	15.459
200	1/16/1993	9:00:00	15.639	15.441
201	1/11/2005	8:00:00	15.595	15.355
202	1/11/2005	3:00:00	15.569	15.305
203	11/8/2004	1:00:00	15.566	15.299
204	2/23/1998	17:00:00	15.530	15.229
205	2/26/2004	17:00:00	15.530	15.229
206	12/9/1996	19:00:00	15.526	15.221
207	1/15/1993	16:00:00	15.498	15.167
208	1/15/1993	14:00:00	15.481	15.134
209	12/27/1984	19:00:00	15.417	15.010
210	1/8/1993	0:00:00	15.382	14.943
211	3/2/1992	17:00:00	15.362	14.904
212	3/11/1975	14:00:00	15.311	14.806
213	1/8/1974	3:00:00	15.269	14.726
214	2/13/1978	13:00:00	15.243	14.676
215	2/13/1978	0:00:00	15.223	14.637
216	12/29/1976	14:00:00	15.194	14.582
217	11/12/2003	9:00:00	15.189	14.572
218	2/8/1983	7:00:00	15.173	14.542
219	1/7/1974	18:00:00	15.158	14.513
220	3/5/1978	8:00:00	15.147	14.492
221	2/23/2005	1:00:00	15.089	14.381
222	1/7/1993	4:00:00	15.062	14.330
223	1/7/1993	3:00:00	15.019	14.248
224	1/17/1978	3:00:00	15.001	14.214
225	3/12/1978	2:00:00	14.970	14.155
226	1/11/2001	8:00:00	14.940	14.098
227	3/12/1978	1:00:00	14.916	14.053
228	1/7/1993	0:00:00	14.916	14.053
229	3/12/1978	0:00:00	14.852	13.932
230	11/24/1978	13:00:00	14.846	13.921
231	2/21/1980	5:00:00	14.836	13.902
232	1/28/1980	22:00:00	14.792	13.819
233	12/4/1974	11:00:00	14.787	13.809
234	2/21/1980	1:00:00	14.740	13.721
235	1/15/1978	6:00:00	14.692	13.631
236	2/20/1980	18:00:00	14.618	13.493
237	2/1/1996	4:00:00	14.614	13.485
238	2/10/1978	4:00:00	14.497	13.267
239	1/15/1978	3:00:00	14.487	13.249
240	2/18/1980	6:00:00	14.407	13.100
241	1/15/1978	2:00:00	14.390	13.069
242	3/11/1986	2:00:00	14.380	13.051
243	1/6/1979	3:00:00	14.377	13.045
244	11/25/1985	4:00:00	14.343	12.982

194	12/18/1984	16:00:00	9.428	5.036
195	2/19/2007	12:00:00	9.425	5.032
196	2/27/1983	6:00:00	9.416	5.019
197	1/16/1993	11:00:00	9.400	4.998
198	1/16/1993	10:00:00	9.397	4.994
199	1/16/1993	9:00:00	9.373	4.961
200	1/11/2005	8:00:00	9.349	4.929
201	12/17/2002	17:00:00	9.347	4.926
202	1/11/2005	3:00:00	9.334	4.909
203	1/15/1993	16:00:00	9.289	4.848
204	1/15/1993	14:00:00	9.280	4.836
205	2/23/1998	17:00:00	9.273	4.827
206	2/26/2004	17:00:00	9.273	4.827
207	1/8/1993	0:00:00	9.220	4.756
208	3/2/1992	17:00:00	9.207	4.739
209	11/8/2004	1:00:00	9.207	4.739
210	12/9/1996	19:00:00	9.183	4.707
211	3/11/1975	14:00:00	9.171	4.691
212	1/8/1974	3:00:00	9.142	4.652
213	12/27/1984	19:00:00	9.139	4.648
214	2/13/1978	13:00:00	9.130	4.637
215	2/13/1978	0:00:00	9.124	4.629
216	2/8/1983	7:00:00	9.097	4.593
217	11/12/2003	9:00:00	9.094	4.589
218	1/7/1974	18:00:00	9.076	4.565
219	3/5/1978	8:00:00	9.069	4.556
220	12/29/1976	14:00:00	9.041	4.520
221	2/23/2005	1:00:00	9.036	4.513
222	1/7/1993	4:00:00	9.031	4.506
223	1/7/1993	3:00:00	9.003	4.470
224	1/17/1978	3:00:00	8.991	4.454
225	3/12/1978	2:00:00	8.975	4.433
226	1/11/2001	8:00:00	8.954	4.406
227	3/12/1978	1:00:00	8.943	4.392
228	1/7/1993	0:00:00	8.941	4.389
229	3/12/1978	0:00:00	8.904	4.341
230	11/24/1978	13:00:00	8.898	4.334
231	2/21/1980	5:00:00	8.881	4.312
232	12/4/1974	11:00:00	8.857	4.281
233	2/21/1980	1:00:00	8.821	4.235
234	1/15/1978	6:00:00	8.806	4.215
235	2/1/1996	4:00:00	8.761	4.158
236	1/28/1980	22:00:00	8.740	4.131
237	2/20/1980	18:00:00	8.738	4.129
238	1/15/1978	3:00:00	8.686	4.063
239	2/10/1978	4:00:00	8.664	4.035
240	2/18/1980	6:00:00	8.641	4.006
241	1/15/1978	2:00:00	8.627	3.988
242	11/25/1985	4:00:00	8.589	3.941
243	3/11/1986	2:00:00	8.571	3.918
244	1/15/1978	1:00:00	8.542	3.882

245	2/22/1998	17:00:00	14.277	12.861
246	1/15/1978	1:00:00	14.253	12.816
247	2/7/1978	19:00:00	14.224	12.763
248	1/14/1990	4:00:00	14.211	12.739
249	3/24/1983	4:00:00	14.190	12.701
250	3/5/1978	5:00:00	14.174	12.672
251	1/29/1980	19:00:00	14.128	12.587
252	2/18/1980	4:00:00	14.126	12.584
253	3/16/1986	17:00:00	14.104	12.544
254	1/29/1980	23:00:00	14.084	12.507
255	1/11/1980	12:00:00	14.051	12.447
256	1/4/1987	19:00:00	14.008	12.369
257	1/16/1978	23:00:00	14.004	12.362
258	1/27/1983	13:00:00	13.982	12.322
259	12/19/1978	9:00:00	13.973	12.305
260	1/31/1996	22:00:00	13.957	12.276
261	1/11/1980	9:00:00	13.923	12.215
262	1/5/1974	2:00:00	13.885	12.146
263	4/20/1983	12:00:00	13.884	12.144
264	1/18/1979	18:00:00	13.879	12.135
265	3/2/1978	10:00:00	13.849	12.081
266	1/28/2005	17:00:00	13.844	12.072
267	11/24/1978	7:00:00	13.838	12.061
268	3/2/1981	2:00:00	13.811	12.012
269	2/9/1976	3:00:00	13.769	11.937
270	1/29/1980	13:00:00	13.721	11.851
271	1/7/1993	16:00:00	13.690	11.795
272	2/8/1976	19:00:00	13.683	11.783
273	1/5/1974	1:00:00	13.673	11.765
274	3/5/1978	16:00:00	13.666	11.752
275	12/7/1992	13:00:00	13.662	11.745
276	12/3/1983	17:00:00	13.654	11.731
277	4/20/1983	11:00:00	13.587	11.611
278	3/11/2006	13:00:00	13.578	11.595
279	1/3/2005	10:00:00	13.570	11.581
280	11/4/1987	23:00:00	13.544	11.535
281	2/11/1978	12:00:00	13.511	11.476
282	1/19/1980	3:00:00	13.443	11.356
283	1/11/1980	1:00:00	13.420	11.315
284	1/5/1974	0:00:00	13.399	11.278
285	2/8/1994	8:00:00	13.386	11.255
286	2/19/2007	16:00:00	13.373	11.232
287	3/1/1978	11:00:00	13.313	11.127
288	2/12/2005	16:00:00	13.312	11.125
289	12/18/1978	23:00:00	13.303	11.109
290	2/7/1976	5:00:00	13.286	11.079
291	3/1/1991	10:00:00	13.281	11.070
292	12/20/2002	17:00:00	13.271	11.053
293	3/1/1978	9:00:00	13.188	10.908
294	3/1/1991	8:00:00	13.177	10.888
295	2/7/1998	16:00:00	13.153	10.847

245	2/7/1978	19:00:00	8.528	3.865
246	2/22/1998	17:00:00	8.503	3.834
247	1/6/1979	3:00:00	8.495	3.824
248	1/29/1980	19:00:00	8.473	3.797
249	3/24/1983	4:00:00	8.456	3.776
250	2/18/1980	4:00:00	8.451	3.769
251	3/5/1978	5:00:00	8.428	3.741
252	1/29/1980	23:00:00	8.426	3.739
253	1/11/1980	12:00:00	8.423	3.735
254	3/16/1986	17:00:00	8.402	3.709
255	1/31/1996	22:00:00	8.366	3.665
256	12/19/1978	9:00:00	8.362	3.660
257	1/27/1983	13:00:00	8.359	3.657
258	1/16/1978	23:00:00	8.356	3.653
259	1/14/1990	4:00:00	8.353	3.649
260	1/4/1987	19:00:00	8.349	3.645
261	1/11/1980	9:00:00	8.346	3.641
262	1/5/1974	2:00:00	8.324	3.614
263	4/20/1983	12:00:00	8.324	3.614
264	1/18/1979	18:00:00	8.285	3.567
265	3/2/1978	10:00:00	8.280	3.561
266	11/24/1978	7:00:00	8.272	3.551
267	2/9/1976	3:00:00	8.241	3.514
268	1/29/1980	13:00:00	8.223	3.492
269	3/2/1981	2:00:00	8.202	3.467
270	2/8/1976	19:00:00	8.201	3.466
271	1/5/1974	1:00:00	8.197	3.461
272	12/7/1992	13:00:00	8.186	3.448
273	4/20/1983	11:00:00	8.143	3.396
274	1/28/2005	17:00:00	8.138	3.391
275	3/5/1978	16:00:00	8.119	3.368
276	11/4/1987	23:00:00	8.118	3.367
277	3/11/2006	13:00:00	8.117	3.366
278	1/3/2005	10:00:00	8.116	3.364
279	1/7/1993	16:00:00	8.098	3.343
280	1/11/1980	1:00:00	8.035	3.269
281	1/5/1974	0:00:00	8.033	3.266
282	2/8/1994	8:00:00	8.026	3.258
283	12/3/1983	17:00:00	8.023	3.255
284	1/19/1980	3:00:00	8.014	3.244
285	2/19/2007	16:00:00	8.013	3.243
286	2/11/1978	12:00:00	8.007	3.236
287	3/1/1978	11:00:00	7.979	3.203
288	2/7/1976	5:00:00	7.968	3.190
289	3/1/1991	10:00:00	7.963	3.185
290	2/12/2005	16:00:00	7.957	3.178
291	12/18/1978	23:00:00	7.932	3.149
292	3/1/1978	9:00:00	7.908	3.121
293	3/1/1991	8:00:00	7.901	3.113
294	12/20/2002	17:00:00	7.893	3.104
295	2/7/1998	16:00:00	7.884	3.093

296	1/29/1980	9:00:00	13.115	10.780
297	3/1/1978	8:00:00	13.102	10.758
298	1/31/1979	10:00:00	13.092	10.740
299	3/11/1978	23:00:00	13.025	10.624
300	1/11/2005	2:00:00	13.010	10.598
301	3/1/1978	7:00:00	13.007	10.593
302	3/5/1995	22:00:00	12.999	10.579
303	1/4/1974	23:00:00	12.995	10.572
304	2/8/1993	21:00:00	12.966	10.522
305	3/24/1994	23:00:00	12.953	10.500
306	2/12/2005	8:00:00	12.952	10.498
307	3/5/1995	21:00:00	12.920	10.443
308	2/22/2008	7:00:00	12.877	10.369
309	11/23/1973	3:00:00	12.861	10.342
310	1/6/1992	12:00:00	12.861	10.342
311	12/5/2004	15:00:00	12.835	10.297
312	1/31/1979	9:00:00	12.817	10.266
313	2/27/1996	23:00:00	12.785	10.211
314	1/29/1980	5:00:00	12.670	10.015
315	11/23/1973	0:00:00	12.589	9.878
316	1/12/1993	16:00:00	12.566	9.839
317	2/6/1976	7:00:00	12.545	9.804
318	3/11/1995	7:00:00	12.544	9.802
319	3/10/1980	18:00:00	12.405	9.568
320	1/29/1980	4:00:00	12.391	9.545
321	3/28/1979	21:00:00	12.364	9.500
322	1/13/1993	21:00:00	12.339	9.458
323	4/7/1978	5:00:00	12.232	9.280
324	11/4/1987	19:00:00	12.154	9.151
325	1/12/1993	19:00:00	12.102	9.065
326	2/5/1978	18:00:00	12.057	8.991
327	3/2/1983	16:00:00	12.046	8.973
328	4/14/1998	17:00:00	11.928	8.781
329	1/5/1978	22:00:00	11.906	8.745
330	10/19/2004	18:00:00	11.883	8.707
331	12/29/2004	6:00:00	11.874	8.693
332	3/1/1978	6:00:00	11.869	8.685
333	4/2/1974	6:00:00	11.850	8.654
334	1/31/1979	7:00:00	11.845	8.646
335	1/15/1993	19:00:00	11.811	8.591
336	2/20/1980	5:00:00	11.791	8.558
337	11/24/1978	3:00:00	11.781	8.542
338	1/29/1980	2:00:00	11.711	8.429
339	1/9/2005	23:00:00	11.652	8.335
340	3/5/1995	13:00:00	11.604	8.258
341	1/4/1974	21:00:00	11.554	8.178
342	12/17/1978	23:00:00	11.549	8.170
343	3/16/1986	22:00:00	11.478	8.058
344	2/11/2003	17:00:00	11.451	8.015
345	1/9/1978	19:00:00	11.426	7.975
346	2/22/2005	22:00:00	11.423	7.971

296	3/1/1978	8:00:00	7.857	3.062
297	1/31/1979	10:00:00	7.848	3.052
298	1/29/1980	9:00:00	7.847	3.051
299	3/1/1978	7:00:00	7.800	2.997
300	3/5/1995	22:00:00	7.793	2.989
301	1/4/1974	23:00:00	7.786	2.981
302	2/12/2005	8:00:00	7.764	2.956
303	3/5/1995	21:00:00	7.748	2.938
304	2/8/1993	21:00:00	7.727	2.914
305	3/11/1978	23:00:00	7.710	2.895
306	3/24/1994	23:00:00	7.700	2.884
307	2/22/2008	7:00:00	7.698	2.881
308	1/31/1979	9:00:00	7.687	2.869
309	1/11/2005	2:00:00	7.676	2.857
310	12/5/2004	15:00:00	7.674	2.854
311	11/23/1973	3:00:00	7.672	2.852
312	2/27/1996	23:00:00	7.634	2.810
313	1/29/1980	5:00:00	7.596	2.767
314	1/6/1992	12:00:00	7.586	2.756
315	1/12/1993	16:00:00	7.519	2.682
316	3/11/1995	7:00:00	7.517	2.680
317	2/6/1976	7:00:00	7.496	2.657
318	1/29/1980	4:00:00	7.424	2.579
319	3/28/1979	21:00:00	7.410	2.563
320	3/10/1980	18:00:00	7.390	2.542
321	11/23/1973	0:00:00	7.348	2.497
322	4/7/1978	5:00:00	7.307	2.453
323	1/13/1993	21:00:00	7.270	2.414
324	11/4/1987	19:00:00	7.258	2.401
325	3/2/1983	16:00:00	7.214	2.355
326	2/5/1978	18:00:00	7.209	2.349
327	1/12/1993	19:00:00	7.190	2.329
328	12/29/2004	6:00:00	7.116	2.252
329	1/31/1979	7:00:00	7.102	2.238
330	4/2/1974	6:00:00	7.100	2.236
331	10/19/2004	18:00:00	7.100	2.236
332	1/15/1993	19:00:00	7.078	2.213
333	4/14/1998	17:00:00	7.053	2.187
334	3/1/1978	6:00:00	7.051	2.185
335	11/24/1978	3:00:00	7.025	2.159
336	1/29/1980	2:00:00	7.015	2.149
337	1/5/1978	22:00:00	7.010	2.144
338	1/9/2005	23:00:00	6.972	2.105
339	3/5/1995	13:00:00	6.956	2.089
340	2/20/1980	5:00:00	6.939	2.072
341	1/4/1974	21:00:00	6.925	2.058
342	3/16/1986	22:00:00	6.886	2.019
343	12/17/1978	23:00:00	6.849	1.982
344	2/22/2005	22:00:00	6.848	1.981
345	2/14/1995	12:00:00	6.831	1.964
346	1/29/1983	2:00:00	6.827	1.960

347	3/1/1983	15:00:00	11.407	7.945
348	2/14/1995	12:00:00	11.391	7.920
349	1/29/1983	2:00:00	11.385	7.911
350	1/7/1993	8:00:00	11.384	7.909
351	3/5/1995	12:00:00	11.282	7.749
352	12/6/1998	7:00:00	11.280	7.746
353	1/25/1995	23:00:00	11.239	7.682
354	4/5/2006	1:00:00	11.128	7.510
355	3/10/1986	21:00:00	11.124	7.503
356	1/6/1993	22:00:00	11.097	7.462
357	12/11/1984	11:00:00	11.085	7.443
358	12/11/1984	10:00:00	10.979	7.280
359	3/5/1981	18:00:00	10.915	7.182
360	12/27/1984	4:00:00	10.857	7.094
361	2/1/1996	3:00:00	10.852	7.086
362	11/24/1984	22:00:00	10.845	7.076
363	2/21/2005	7:00:00	10.758	6.944
364	3/12/1995	0:00:00	10.738	6.914
365	1/14/1990	5:00:00	10.678	6.824
366	8/17/1977	1:00:00	10.661	6.798
367	12/18/1984	19:00:00	10.621	6.738
368	1/31/1996	21:00:00	10.621	6.738
369	2/7/1978	18:00:00	10.595	6.699
370	1/5/1992	16:00:00	10.514	6.579
371	12/7/1992	15:00:00	10.493	6.548
372	10/31/1987	18:00:00	10.484	6.535
373	3/26/1991	3:00:00	10.449	6.483
374	12/19/1978	7:00:00	10.428	6.452
375	2/28/2006	2:00:00	10.427	6.450
376	1/27/2008	3:00:00	10.375	6.374
377	1/26/1997	3:00:00	10.344	6.328
378	1/14/1978	19:00:00	10.240	6.177
379	1/11/2001	7:00:00	10.233	6.167
380	1/6/1993	14:00:00	10.189	6.103
381	2/5/1976	17:00:00	10.132	6.021
382	2/2/1998	16:00:00	10.118	6.001
383	12/18/1984	17:00:00	10.113	5.993
384	1/10/1995	21:00:00	10.105	5.982
385	2/20/1993	7:00:00	10.079	5.944
386	11/21/2004	8:00:00	9.994	5.823
387	1/18/1979	8:00:00	9.878	5.659
388	1/5/1992	15:00:00	9.822	5.580
389	10/27/2004	15:00:00	9.754	5.485
390	1/7/2008	3:00:00	9.735	5.458
391	3/2/1992	10:00:00	9.725	5.444
392	3/1/1981	5:00:00	9.687	5.391
393	11/29/1985	15:00:00	9.679	5.380
394	5/2/1980	0:00:00	9.653	5.344
395	3/1/1991	11:00:00	9.620	5.298
396	2/8/1976	17:00:00	9.593	5.261
397	2/12/2005	11:00:00	9.492	5.123

347	1/7/1993	8:00:00	6.818	1.951
348	3/1/1983	15:00:00	6.787	1.921
349	1/9/1978	19:00:00	6.764	1.898
350	3/5/1995	12:00:00	6.759	1.893
351	1/25/1995	23:00:00	6.735	1.870
352	2/11/2003	17:00:00	6.726	1.861
353	3/10/1986	21:00:00	6.665	1.803
354	1/6/1993	22:00:00	6.649	1.787
355	12/11/1984	11:00:00	6.646	1.784
356	4/5/2006	1:00:00	6.641	1.780
357	12/6/1998	7:00:00	6.629	1.768
358	12/11/1984	10:00:00	6.579	1.721
359	2/1/1996	3:00:00	6.509	1.655
360	12/27/1984	4:00:00	6.504	1.651
361	11/24/1984	22:00:00	6.496	1.643
362	2/21/2005	7:00:00	6.449	1.600
363	3/5/1981	18:00:00	6.409	1.563
364	1/14/1990	5:00:00	6.396	1.551
365	12/18/1984	19:00:00	6.370	1.528
366	3/12/1995	0:00:00	6.303	1.467
367	1/5/1992	16:00:00	6.302	1.466
368	12/7/1992	15:00:00	6.293	1.458
369	2/28/2006	2:00:00	6.247	1.418
370	8/17/1977	1:00:00	6.246	1.417
371	1/31/1996	21:00:00	6.241	1.412
372	1/27/2008	3:00:00	6.224	1.397
373	2/7/1978	18:00:00	6.218	1.392
374	3/26/1991	3:00:00	6.211	1.386
375	1/26/1997	3:00:00	6.196	1.373
376	10/31/1987	18:00:00	6.149	1.332
377	1/11/2001	7:00:00	6.127	1.313
378	12/19/1978	7:00:00	6.118	1.305
379	1/6/1993	14:00:00	6.077	1.270
380	12/18/1984	17:00:00	6.064	1.259
381	1/10/1995	21:00:00	6.061	1.257
382	2/2/1998	16:00:00	6.057	1.253
383	1/14/1978	19:00:00	6.031	1.231
384	2/5/1976	17:00:00	5.981	1.190
385	2/20/1993	7:00:00	5.907	1.129
386	10/27/2004	15:00:00	5.854	1.086
387	1/7/2008	3:00:00	5.832	1.068
388	11/29/1985	15:00:00	5.795	1.039
389	1/18/1979	8:00:00	5.787	1.032
390	11/21/2004	8:00:00	5.777	1.024
391	3/1/1991	11:00:00	5.769	1.018
392	1/5/1992	15:00:00	5.749	1.002
393	2/12/2005	11:00:00	5.685	0.953
394	3/2/1992	10:00:00	5.680	0.949
395	3/1/1981	5:00:00	5.670	0.941
396	5/2/1980	0:00:00	5.667	0.939
397	2/5/1976	3:00:00	5.618	0.902

398	9/3/1976	17:00:00	9.428	5.036
399	2/5/1976	3:00:00	9.370	4.957
400	3/1/1991	6:00:00	9.339	4.915
401	1/7/2008	5:00:00	9.338	4.914
402	2/15/1986	9:00:00	9.257	4.805
403	3/1/1991	5:00:00	9.257	4.805
404	1/7/2005	14:00:00	9.087	4.580
405	9/25/1986	7:00:00	9.038	4.516
406	12/17/1987	7:00:00	8.999	4.465
407	3/6/1980	8:00:00	8.860	4.285
408	1/27/1983	9:00:00	8.835	4.252
409	12/11/1984	8:00:00	8.827	4.242
410	11/25/1985	10:00:00	8.800	4.208
411	10/19/2004	19:00:00	8.786	4.190
412	3/8/1975	13:00:00	8.760	4.157
413	8/17/1977	4:00:00	8.751	4.145
414	2/28/2006	8:00:00	8.713	4.097
415	1/6/1979	4:00:00	8.627	3.988
416	3/1/1991	2:00:00	8.623	3.983
417	2/2/1983	15:00:00	8.621	3.981
418	11/25/1985	9:00:00	8.589	3.941
419	10/20/1979	16:00:00	8.572	3.920
420	3/6/1975	12:00:00	8.534	3.872
421	2/7/1998	15:00:00	8.493	3.821
422	4/29/1980	1:00:00	8.421	3.733
423	4/20/1983	10:00:00	8.419	3.730
424	12/4/1974	13:00:00	8.410	3.719
425	2/13/1998	16:00:00	8.400	3.707
426	3/2/1983	22:00:00	8.388	3.692
427	12/30/1981	15:00:00	8.385	3.688
428	3/3/1983	5:00:00	8.376	3.677
429	1/10/1980	12:00:00	8.342	3.636
430	3/3/1983	9:00:00	8.330	3.621
431	3/5/1995	15:00:00	8.314	3.602
432	2/28/1983	2:00:00	8.301	3.586
433	1/16/1993	12:00:00	8.283	3.564
434	1/16/1993	13:00:00	8.256	3.532
435	1/11/2005	6:00:00	8.216	3.484
436	3/3/1983	3:00:00	8.208	3.474
437	1/11/2005	7:00:00	8.168	3.426
438	1/10/2005	1:00:00	8.051	3.288
439	2/12/2005	7:00:00	8.032	3.265
440	10/19/2004	14:00:00	8.013	3.243
441	11/1/1974	23:00:00	7.989	3.215
442	3/12/1986	14:00:00	7.939	3.157
443	12/25/2003	20:00:00	7.925	3.141
444	3/12/1986	13:00:00	7.923	3.138
445	1/7/1993	22:00:00	7.922	3.137
446	1/13/1993	23:00:00	7.882	3.091
447	1/9/2005	9:00:00	7.881	3.090
448	1/12/1995	14:00:00	7.866	3.072

398	2/8/1976	17:00:00	5.616	0.900
399	3/1/1991	6:00:00	5.599	0.887
400	1/7/2008	5:00:00	5.572	0.867
401	2/15/1986	9:00:00	5.547	0.849
402	3/1/1991	5:00:00	5.547	0.849
403	9/3/1976	17:00:00	5.470	0.792
404	9/25/1986	7:00:00	5.420	0.756
405	12/17/1987	7:00:00	5.307	0.678
406	1/7/2005	14:00:00	5.296	0.670
407	3/6/1980	8:00:00	5.293	0.668
408	1/27/1983	9:00:00	5.282	0.661
409	11/25/1985	10:00:00	5.275	0.656
410	10/19/2004	19:00:00	5.270	0.653
411	8/17/1977	4:00:00	5.252	0.640
412	12/11/1984	8:00:00	5.201	0.607
413	2/28/2006	8:00:00	5.198	0.605
414	1/6/1979	4:00:00	5.171	0.587
415	2/2/1983	15:00:00	5.163	0.582
416	11/25/1985	9:00:00	5.147	0.571
417	10/20/1979	16:00:00	5.136	0.564
418	3/1/1991	2:00:00	5.136	0.564
419	3/6/1975	12:00:00	5.123	0.556
420	3/8/1975	13:00:00	5.113	0.550
421	2/7/1998	15:00:00	5.089	0.534
422	12/4/1974	13:00:00	5.047	0.508
423	3/2/1983	22:00:00	5.028	0.496
424	12/30/1981	15:00:00	5.023	0.493
425	3/3/1983	5:00:00	5.020	0.492
426	2/13/1998	16:00:00	4.993	0.475
427	3/3/1983	9:00:00	4.987	0.471
428	3/5/1995	15:00:00	4.981	0.468
429	1/16/1993	12:00:00	4.970	0.461
430	2/28/1983	2:00:00	4.960	0.455
431	1/16/1993	13:00:00	4.950	0.449
432	1/11/2005	6:00:00	4.932	0.439
433	4/29/1980	1:00:00	4.911	0.426
434	3/3/1983	3:00:00	4.908	0.425
435	4/20/1983	10:00:00	4.908	0.425
436	1/11/2005	7:00:00	4.898	0.419
437	1/10/1980	12:00:00	4.868	0.402
438	1/10/2005	1:00:00	4.824	0.377
439	10/19/2004	14:00:00	4.791	0.359
440	3/12/1986	14:00:00	4.760	0.342
441	2/12/2005	7:00:00	4.756	0.339
442	12/25/2003	20:00:00	4.754	0.338
443	3/12/1986	13:00:00	4.750	0.336
444	1/7/1993	22:00:00	4.747	0.335
445	1/13/1993	23:00:00	4.734	0.328
446	1/9/2005	9:00:00	4.723	0.322
447	1/12/1995	14:00:00	4.713	0.317
448	1/7/1993	20:00:00	4.687	0.303

551	2/12/2005	14:00:00	5.813	1.053
552	3/10/1975	18:00:00	5.750	1.003
553	2/28/1991	16:00:00	5.735	0.991
554	3/10/1975	17:00:00	5.712	0.973
555	2/28/2006	10:00:00	5.685	0.953
556	3/16/1986	0:00:00	5.678	0.947
557	3/10/1975	16:00:00	5.668	0.940
558	2/28/2006	1:00:00	5.647	0.924
559	3/4/1978	22:00:00	5.630	0.911
560	1/17/1978	2:00:00	5.629	0.910
561	3/10/1975	15:00:00	5.619	0.902
562	2/16/1998	16:00:00	5.615	0.899
563	3/13/1996	10:00:00	5.612	0.897
564	2/19/1993	18:00:00	5.606	0.893
565	1/8/1974	7:00:00	5.595	0.884
566	2/20/1980	6:00:00	5.591	0.881
567	4/12/1999	4:00:00	5.579	0.872
568	1/9/2005	8:00:00	5.568	0.864
569	3/4/1978	21:00:00	5.552	0.852
570	3/10/1975	14:00:00	5.518	0.827
571	12/6/1986	18:00:00	5.512	0.823
572	1/17/1978	1:00:00	5.511	0.822
573	2/19/1980	17:00:00	5.510	0.821
574	3/1/1991	4:00:00	5.495	0.810
575	11/24/1978	12:00:00	5.483	0.802
576	1/15/1978	5:00:00	5.472	0.794
577	3/1/1991	3:00:00	5.459	0.784
578	12/29/1991	17:00:00	5.459	0.784
579	2/2/1983	16:00:00	5.446	0.775
580	1/17/1978	0:00:00	5.433	0.766
581	1/5/1974	11:00:00	5.389	0.735
582	12/16/1987	17:00:00	5.377	0.726
583	3/1/1976	20:00:00	5.367	0.719
584	3/6/1980	6:00:00	5.350	0.707
585	3/1/1981	13:00:00	5.343	0.702
586	4/2/1974	5:00:00	5.303	0.675
587	2/15/1986	8:00:00	5.294	0.669
588	2/19/1993	21:00:00	5.256	0.643
589	1/5/1974	10:00:00	5.255	0.642
590	12/26/1977	16:00:00	5.248	0.638
591	3/25/1994	2:00:00	5.214	0.615
592	2/11/1978	15:00:00	5.211	0.613
593	3/5/1981	19:00:00	5.202	0.607
594	3/11/1975	0:00:00	5.186	0.597
595	2/27/1991	22:00:00	5.182	0.594
596	1/18/1979	19:00:00	5.148	0.572
597	12/26/1977	14:00:00	5.115	0.551
598	2/15/1986	7:00:00	5.109	0.547
599	1/6/1992	0:00:00	5.105	0.544
600	3/10/1975	22:00:00	5.100	0.541
601	12/19/1987	17:00:00	5.100	0.541

602	2/7/1978	20:00:00	5.087	0.533
603	12/16/1987	15:00:00	5.067	0.521
604	2/7/1978	21:00:00	5.061	0.517
605	1/29/1980	21:00:00	5.056	0.514
606	2/21/1980	3:00:00	5.045	0.507
607	3/10/1975	20:00:00	5.043	0.506
608	11/24/1978	15:00:00	5.032	0.499
609	2/18/1980	2:00:00	4.999	0.479
610	1/7/2005	15:00:00	4.993	0.475
611	2/12/2003	16:00:00	4.988	0.472
612	3/2/1978	11:00:00	4.959	0.455
613	1/1/1977	15:00:00	4.953	0.451
614	2/27/1983	20:00:00	4.936	0.441
615	1/19/1980	4:00:00	4.932	0.439
616	12/26/1977	12:00:00	4.928	0.436
617	3/1/1981	8:00:00	4.926	0.435
618	2/18/1980	1:00:00	4.900	0.420
619	3/4/1978	20:00:00	4.857	0.395
620	3/3/1983	7:00:00	4.850	0.391
621	1/31/1979	15:00:00	4.849	0.391
622	1/5/1974	3:00:00	4.848	0.390
623	2/20/1980	0:00:00	4.842	0.387
624	1/11/2001	10:00:00	4.836	0.384
625	11/25/1985	8:00:00	4.831	0.381
626	2/7/1998	19:00:00	4.828	0.379
627	3/2/1992	16:00:00	4.822	0.376
628	1/18/1993	7:00:00	4.816	0.372
629	2/12/2005	3:00:00	4.798	0.362
630	1/11/1980	10:00:00	4.793	0.360
631	3/1/1981	7:00:00	4.790	0.358
632	2/7/1998	14:00:00	4.785	0.355
633	1/15/1978	0:00:00	4.770	0.347
634	3/25/1994	1:00:00	4.768	0.346
635	1/11/1980	8:00:00	4.750	0.336
636	4/18/1995	15:00:00	4.746	0.334
637	3/24/1983	22:00:00	4.745	0.334
638	1/11/1980	11:00:00	4.744	0.333
639	3/3/1983	4:00:00	4.730	0.326
640	3/2/1983	6:00:00	4.717	0.319
641	11/12/2003	10:00:00	4.710	0.315
642	12/19/1978	0:00:00	4.709	0.315
643	1/18/1979	9:00:00	4.696	0.308
644	2/8/1976	23:00:00	4.693	0.306
645	10/29/1974	6:00:00	4.686	0.303
646	3/1/1981	6:00:00	4.685	0.302
647	2/28/1991	17:00:00	4.668	0.293
648	3/8/1974	11:00:00	4.667	0.293
649	2/22/2005	19:00:00	4.653	0.286
650	3/11/1995	6:00:00	4.652	0.285
651	10/19/2004	15:00:00	4.652	0.285
652	1/18/1993	10:00:00	4.633	0.276

653	1/16/1993	14:00:00	4.594	0.256
654	1/12/1995	9:00:00	4.584	0.251
655	2/9/1976	0:00:00	4.581	0.250
656	11/23/1973	4:00:00	4.563	0.241
657	3/2/1978	6:00:00	4.559	0.239
658	2/8/1976	20:00:00	4.551	0.236
659	3/8/1974	10:00:00	4.548	0.234
660	3/8/1975	14:00:00	4.542	0.231
661	1/11/2001	6:00:00	4.538	0.229
662	3/4/1983	5:00:00	4.537	0.229
663	1/5/2008	12:00:00	4.517	0.220
664	12/26/1977	10:00:00	4.515	0.219
665	2/13/1978	22:00:00	4.510	0.216
666	1/15/1993	20:00:00	4.501	0.212
667	1/11/2001	9:00:00	4.501	0.212
668	1/15/1993	17:00:00	4.495	0.209
669	3/5/1995	14:00:00	4.495	0.209
670	3/1/1981	12:00:00	4.487	0.206
671	1/8/1974	1:00:00	4.481	0.203
672	1/15/1993	15:00:00	4.471	0.199
673	12/29/2004	5:00:00	4.455	0.191
674	2/8/1976	18:00:00	4.450	0.189
675	2/27/1983	17:00:00	4.449	0.189
676	1/16/1993	3:00:00	4.445	0.187
677	1/10/2005	0:00:00	4.438	0.184
678	1/15/1993	21:00:00	4.427	0.179
679	1/6/1978	15:00:00	4.424	0.178
680	1/11/1980	2:00:00	4.407	0.171
681	1/15/1993	18:00:00	4.396	0.166
682	3/8/1974	9:00:00	4.392	0.164
683	1/14/1978	21:00:00	4.356	0.149
684	11/2/1974	0:00:00	4.347	0.146
685	2/15/1992	14:00:00	4.314	0.133
686	1/29/1980	12:00:00	4.301	0.128
687	1/7/1993	23:00:00	4.299	0.127
688	1/7/1993	17:00:00	4.279	0.119
689	1/7/1993	21:00:00	4.276	0.118
690	2/2/1983	14:00:00	4.267	0.115
691	3/26/1991	4:00:00	4.267	0.115
692	1/7/1992	21:00:00	4.264	0.114
693	1/9/2005	0:00:00	4.250	0.109
694	1/14/1993	5:00:00	4.238	0.104
695	4/21/1988	20:00:00	4.213	0.095
696	11/24/1978	9:00:00	4.210	0.094
697	1/14/1993	4:00:00	4.196	0.090
698	2/18/2005	7:00:00	4.192	0.088
699	10/10/1986	2:00:00	4.190	0.087
700	2/23/2005	2:00:00	4.174	0.082
701	2/2/1998	18:00:00	4.171	0.081

Equation H.8.1

$$W_t = \sum_{j=1}^n \Delta t_j \cdot (Q^{3m/2} - (0.1Q_2)^{3m/2})^{1.5} Q^m$$

Equation H.8.1

m	0.400	(2/5)
3m/2	0.600	

SUMMARY

(a) ΣW_{PRE} :	10872
(b) ΣW_{POST} :	3792
(c) $S_{\text{Y}_{\text{RUSLE}}}$:	1.101
(d) $S_{\text{Y}_{\text{NHD}}}$:	0.833

E_p :	0.349	[(b)/(a)]
S_p :	1.021	[0.7(c)+0.3(d)]

E_p / S_p :	0.3
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$E_p / S_p \leq 1.1$: No Net Impact Achieved.

Appendix C:

- Width Analysis, Proper Selection of Coefficient m and Detailed Explanation of the Meaning of m

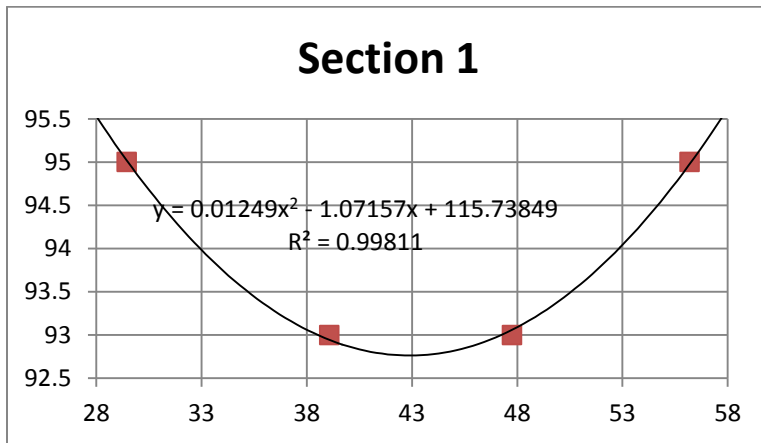
APPENDIX C

Width Analysis, Proper Selection of Coefficient m & Detailed Explanation of the Meaning of m

Selection of m coefficient:

3 sections are analyzed between POC-2A and 2B:

SECTION 1: LOWER THIRD

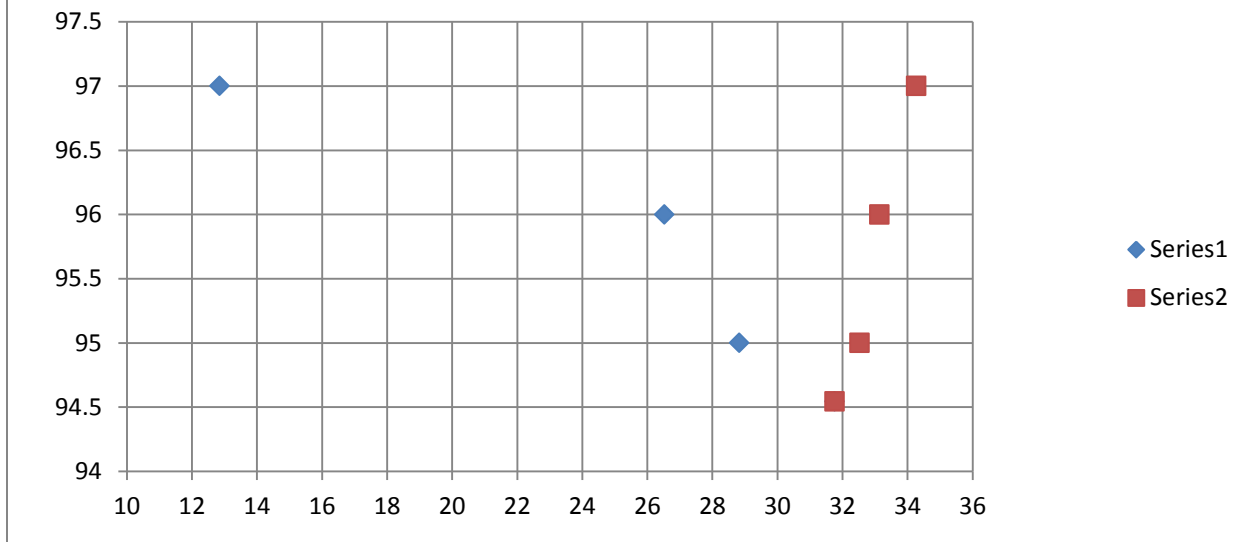


Trapezoidal
Channel

			At 95:	At 94:	At 92.5:
T (at elevation 95):	26.703 ft	A:	39.64	16.21	4.377
h:	2.2265 ft	P:	27.20	20.02	12.87
T/h:	11.99 > 7	R:	1.457	0.809	0.340
		s:	0.035	0.035	0.035
T (at elevation 94):	19.819 ft	n	0.035	0.035	0.035
h:	1.2265 ft	Q:	404.7	111.8	16.9
T/h:	16.16 > 7				
T (at elevation 92.5):	12.811 ft				
h:	0.5125 ft				
T/h:	> 7				

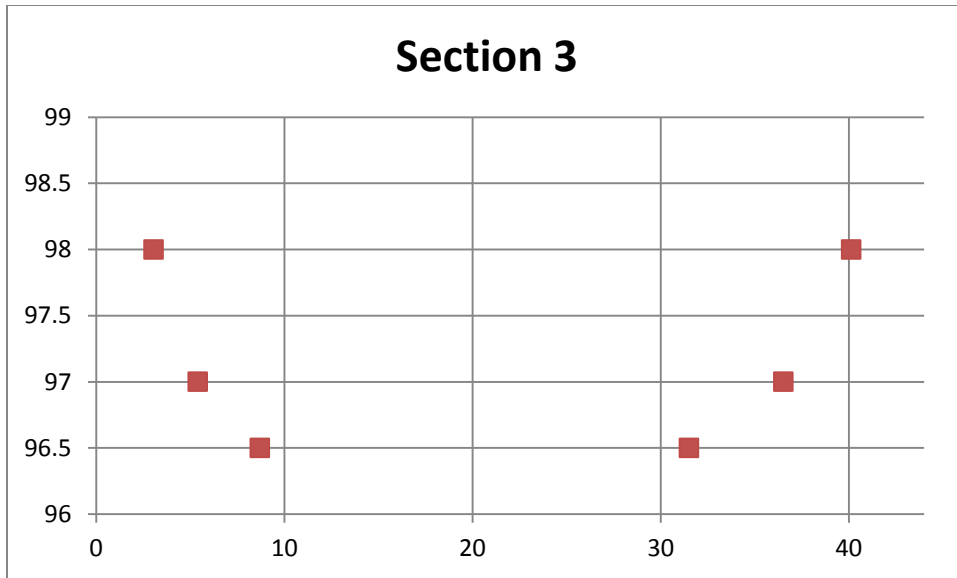
RESULT: CLEARLY TRAPEZOIDAL. Best m: 4/13.

SECTION 2



W	h	W/h	A	P	R	Q
21.42	2.454	8.73	20.020	22.466	0.891	147.3
14.02	1.954	7.17	11.160	14.977	0.745	72.9
6.62	1.454	4.55	6.000	7.488	0.801	41.1
5.16	0.954	5.41	3.055	5.665	0.539	16.1
3.70	0.454	8.14	0.840	3.842	0.219	2.4

RESULT: Depending on the depth, $W/h < 7$ (narrow for some flows) and $W/h > 7$ (medium for very low flows or high flows). **Best m: intermediate between 1/4 and 4/13.**



W	h	W/h
37.08	1.5	24.72
35.59	1.25	28.47
34.11	1	43.49
31.13	0.5	62.26

A:	39.64	16.21	4.377
P:	27.20	20.02	12.87
R:	1.457	0.809	0.340
s:	0.035	0.035	0.035
n	0.035	0.035	0.035
Q:	404.7	111.8	16.9

RESULT: for most of this section $W/h > 25$ (wide section). **Best m: 2/5.**

TOTAL RESULTS: 1st section: $m = 4/13$; 2nd section: m between $1/4$ and $4/13$. 3rd section: $m = 2/5$.

Average value: $0.333 \cdot (4/13) + 0.333/2 \cdot (1/4 + 4/13) + 0.333 \cdot 2/5 = 0.329$. Closest value: $m = 4/13$ (0.308).

From the analysis of the 3 sections it has been considered that the best value for m in this case (POC 2A) is $4/13$.

CONSIDERATIONS IN REGARDS TO m VALUE

Much more than the width, it is the nature of the shape of a channel what determines m. The study that defines the nature of the m coefficient, prepared by Dr. Parra pro bono and incorporated into the BMP Manual after being reviewed by the TAC, was carried out to simplify the No Net Impact channel analysis and avoid specific analysis of channel sections and site visits into channels, and assumes simple shapes for a mathematical approach of the work equation, as those shapes can be solved analytically: $m = 1/4$ is a consequence of the simplification of the work equation for triangular channels of any width (and in a simplified manner is used for narrow channels); $m = 4/13$ is a consequence of the mathematical simplification of wide parabolic channels (when the simplification of $R_h = 2/3 \cdot y$ is valid, which typically occurs for $T/y > 7$) and thus is not good for narrow parabolic channels (but is valid for wide parabolic channels regardless of T/y) and $m = 2/5$ is valid for rectangular channels where $R_h \approx y$ where the width to depth ratio exceeds 25.

From Dr. Parra's work, few things that the reviewer might not be aware are evident:

- The coefficient m is supposed to be selected as a unique coefficient for a given analysis as it is a shape-of-the-channel coefficient. There is no explanation in Appendix H or in the original Dr. Parra's work to change the use of m as the depth of the flow changes. There is no instruction in Appendix H to change m as the channel depth changes and as the m coefficient was developed as a shape value, it is the opinion of this author that a single value of m should be used for the entire analysis (see next points for further clarification).
- For a triangular channel, by definition, T/y is constant, so if a channel is assumed triangular there is no need to describe a transition flow behavior; the reviewer is then contradicting himself because he suggests to use $m = 0.25$ and at the same time consider narrow during lower flows, and then transition to medium and wide flow as the flow increases, where such transition does not occur for triangular channels because T/y is constant regardless of flow.
- The reviewer also ignores the fact that for a rectangular channel, by definition, T/y decreases as y increases (as T is constant) so it should be used when $T/y > 25$ for a large flow. If any potential transition is going to occur in a rectangular channel, it will be from wide for low flow, to medium to narrow as the flow increases (for example, a 20 ft wide channel will be wide for $y = 0.5$ ft; medium for $y = 2$ ft, and narrow for $y = 5$ ft). This transition is opposite to that described by the reviewer
- For a parabolic channel, a transition similar to that of the rectangular channel will occur.
- There is no specific explanation in the original Dr. Parra's work nor in Appendix H that says that the most conservative value is $m = 0.25$. Is a triangular section more conservative than a rectangular one? The selection of m has nothing to do with our biases in terms of what we consider most conservative, but rather in how the overall shape of the flow along the sections of the creek analyzed can be approximated in a simplistic manner, and how in cases where the channel is narrow the only simplified analytical equation that can be developed is the one corresponding to triangular channels

As a consequence of the complexity of the width behavior and the approximate nature of the analysis when the m method is used, the TAC decided to limit the use of m as follows: for narrow channels, use $m = 1/4$ (in reality $m = 1/4$ can be used for any channel that is very triangular in shape

regardless of T/y meaning that the lateral slope of the left and right banks are approximately constant); for intermediate channels use $m = 4/13$ (this coefficient can be used for any channel that is approximately parabolic in shape, meaning that the lateral slope reduces as the channel approaches the central bottom and increases towards the extremes of the section; however, it is not a good approximation if most of the sediment transport occurs when the top width is less than 7 times the depth); and for wide channels use $m = 2/5$ (this coefficient can be used for any channel where the width is the dominant dimension for friction purposes, meaning that most work occurs when the depth is less than 4% of the width).

From the previous explanations, and considering the reviewer's misinterpretation of the m coefficient, Dr. Parra prefers his own expertise than that of the reviewer in this particular subject because m is a shape-based coefficient, and there is not a methodological approach in Appendix H that explains how to select m .

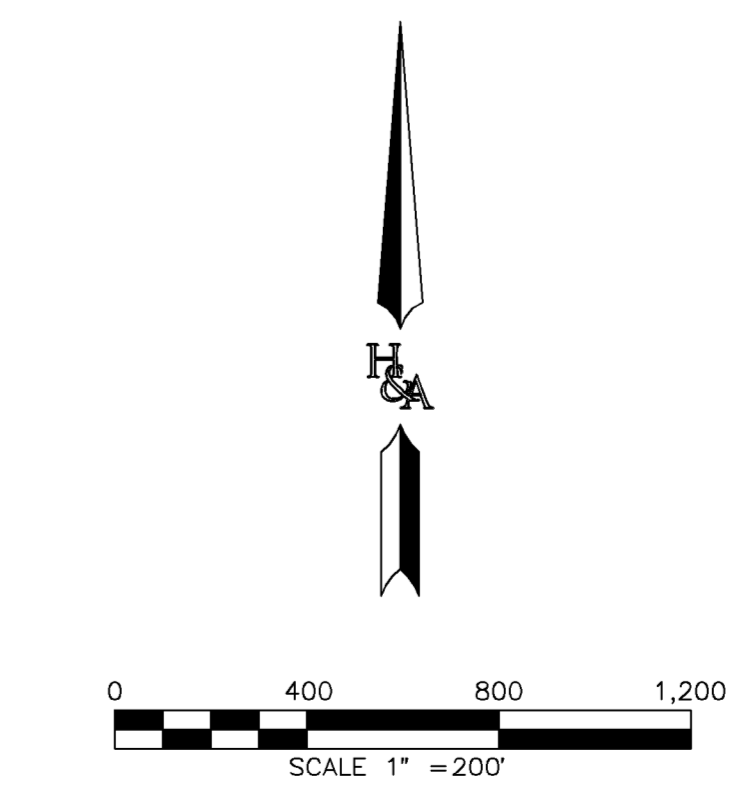
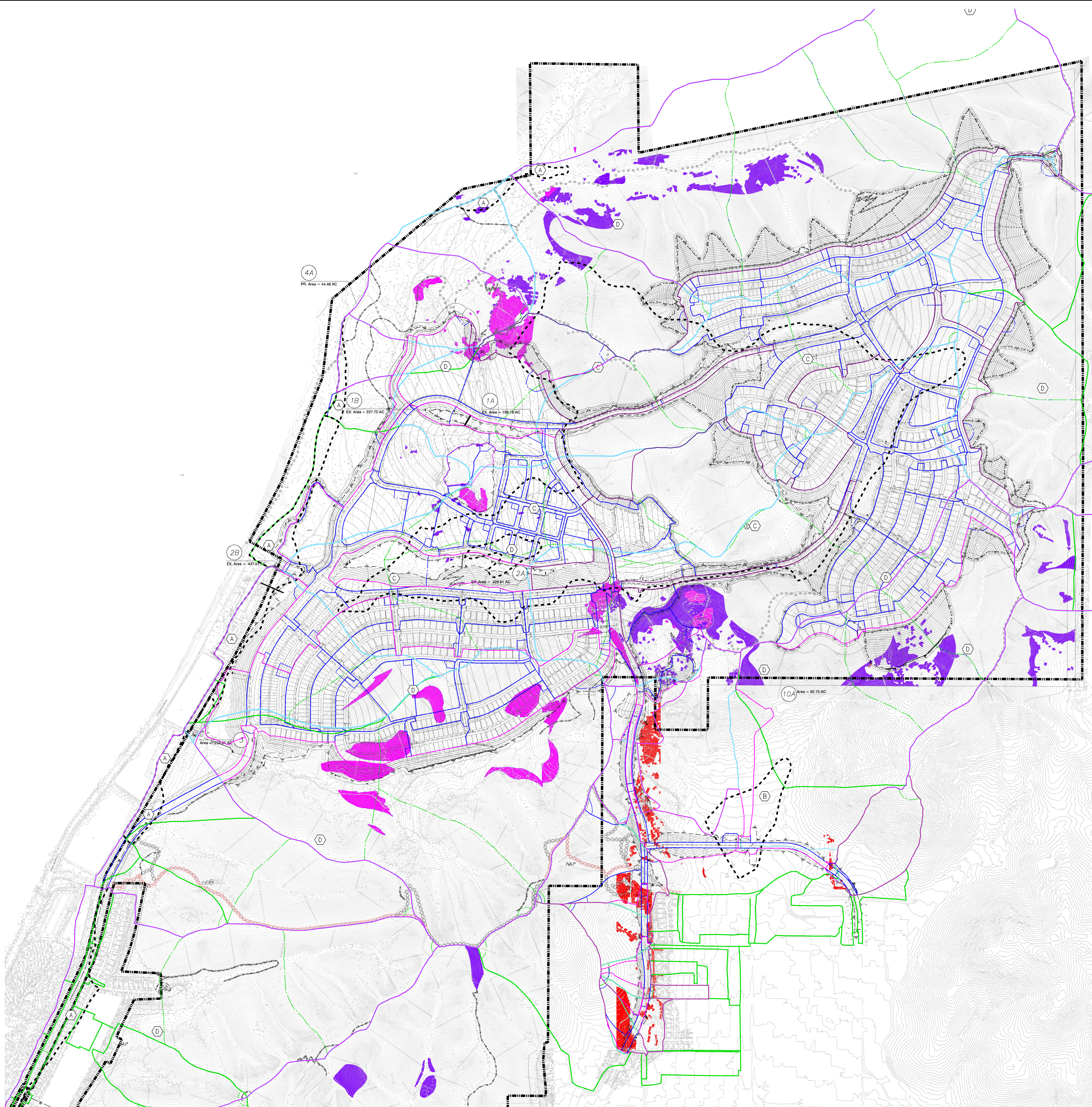
Also, to avoid endless discussions in this regard, for those creeks where the response of the No Net impact does not change depending on the selection of the m coefficient, all three m values will be selected and the analysis will demonstrate that No Net Impact compliance is independent on the selection of m . For those creeks where the response depends on the value of m (for example, creeks where no net impact is reached for larger values of m ($m = 2/5; 4/13$) but not reached for smaller values of m ($m = 1/4$)) a brief analysis of few sections of the creek in question was performed in this Appendix to see what value of m is better suited for the analysis. In those cases, a single value of m was selected justified by few sections determined with the given topography.

The value of m best suited for POCs 2A and 3 is $4/13$.

The following scenarios depict the creeks that need a more detailed analysis for the determination of m : POC-2A (3 creek sections downstream of POC-2A) and POC-3 (also 3 creek sections downstream of POC-3). In both cases, it was concluded that the most adequate value of m corresponds to that of the parabolic section ($m = 4/13$).

Exhibits:

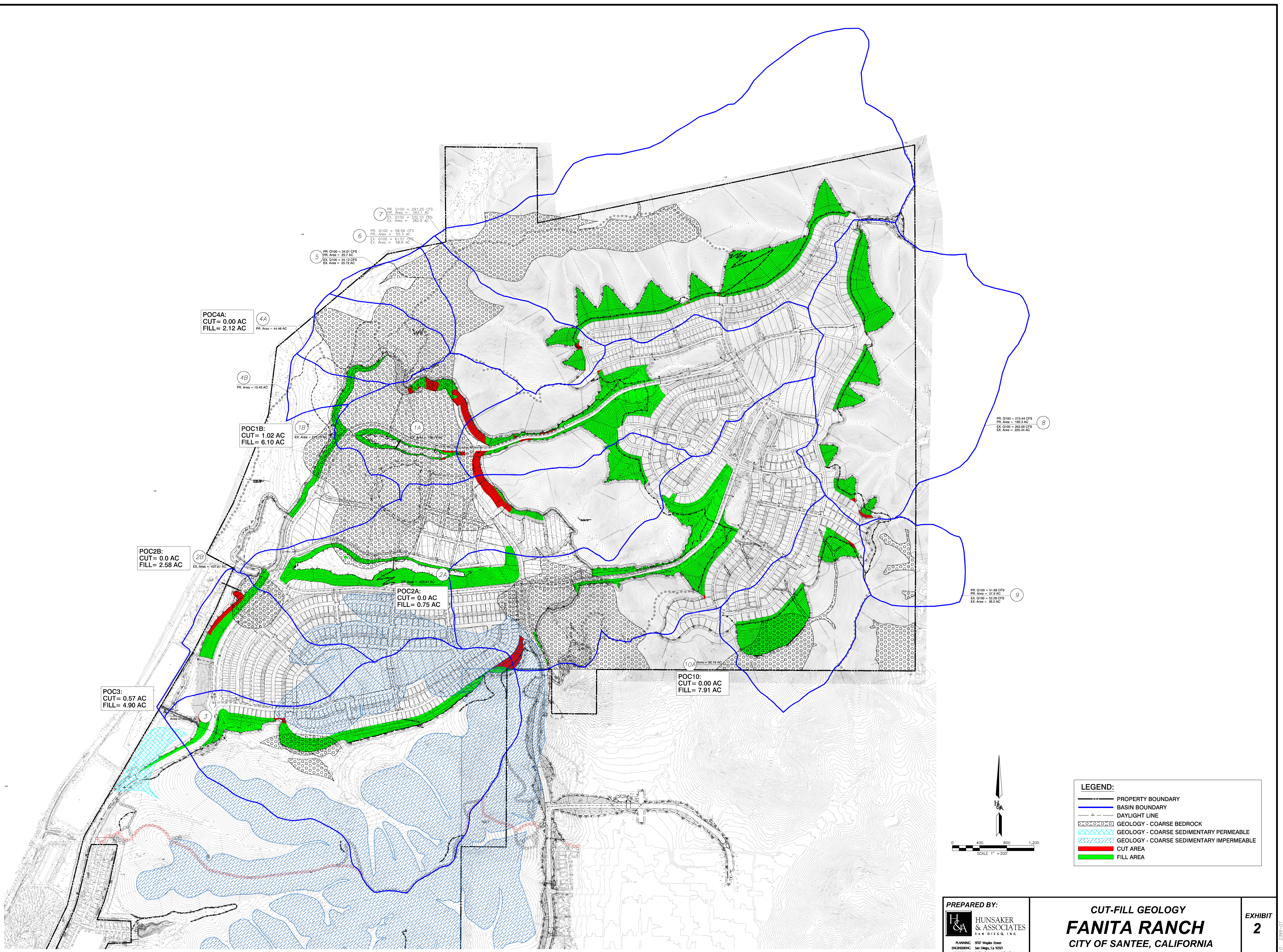
- Exhibit 1: CCSYA- GLU Exhibit (Hunsaker, May 2018)
- Exhibit 2: Fill and Cut Slope Map (Hunsaker, May 2018)
- Exhibits 3a & 3b: Pre and Post-Development GLU Areas (Hunsaker, May 2018)
- Exhibits 4a & 4b: NHD-Plus Pre and Post-Development Channel Map (Hunsaker, May 2018)



LEGEND:

█	CCSYA'S - GLU ONSITE
█	CCSYA'S - GLU CUY-MAG
	POINT OF COMPLIANCE
—	RECEIVING CHANNELS
—	EX WTRSHD BNDY
—	PR WTRSHD BNDY
—	EX HYDMOD BNDY
—	PR HYDMOD BNDY
- - -	DAYLIGHT LINE

<p>PREPARED BY:</p> <p>HUNSAKER & ASSOCIATES SAN DIEGO, INC.</p> <p><small>PLANNING: 9707 Waples Street ENGINEERING: San Diego, Ca 92121 SURVEYING: PH808038-4000 FAX808038-1414</small></p>	<p>CCSYA EXHIBIT GLU ANALYSIS FANITA RANCH CITY OF SANTEE, CALIFORNIA</p>	<p>EXHIBIT 1</p>
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POC4A:
CUT = 0.00 AC
FILL = 2.12 AC

POC2B:
CUT = 0.0 AC
FILL = 2.58 AC

POC1B:
CUT = 1.02 AC
FILL = 6.10 AC

POC2A:
CUT = 0.0 AC
FILL = 0.75 AC

POC3:
CUT = 0.57 AC
FILL = 4.90 AC

POC10:
CUT = 0.00 AC
FILL = 7.91 AC

7
PR. Q100 = 291.25 CFS
PR. Area = 243.7 AC
EX. Q100 = 332.10 CFS
EX. Area = 382.5 AC

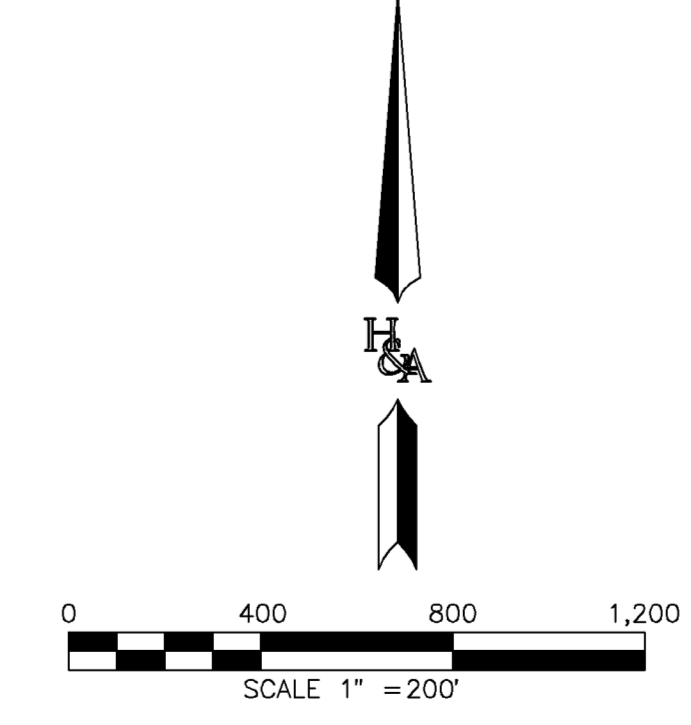
6
PR. Q100 = 58.56 CFS
PR. Area = 55.3 AC
EX. Q100 = 61.51 CFS
EX. Area = 58.8 AC


5
PR. Q100 = 34.01 CFS
PR. Area = 26.7 AC
EX. Q100 = 34.13 CFS
EX. Area = 25.72 AC

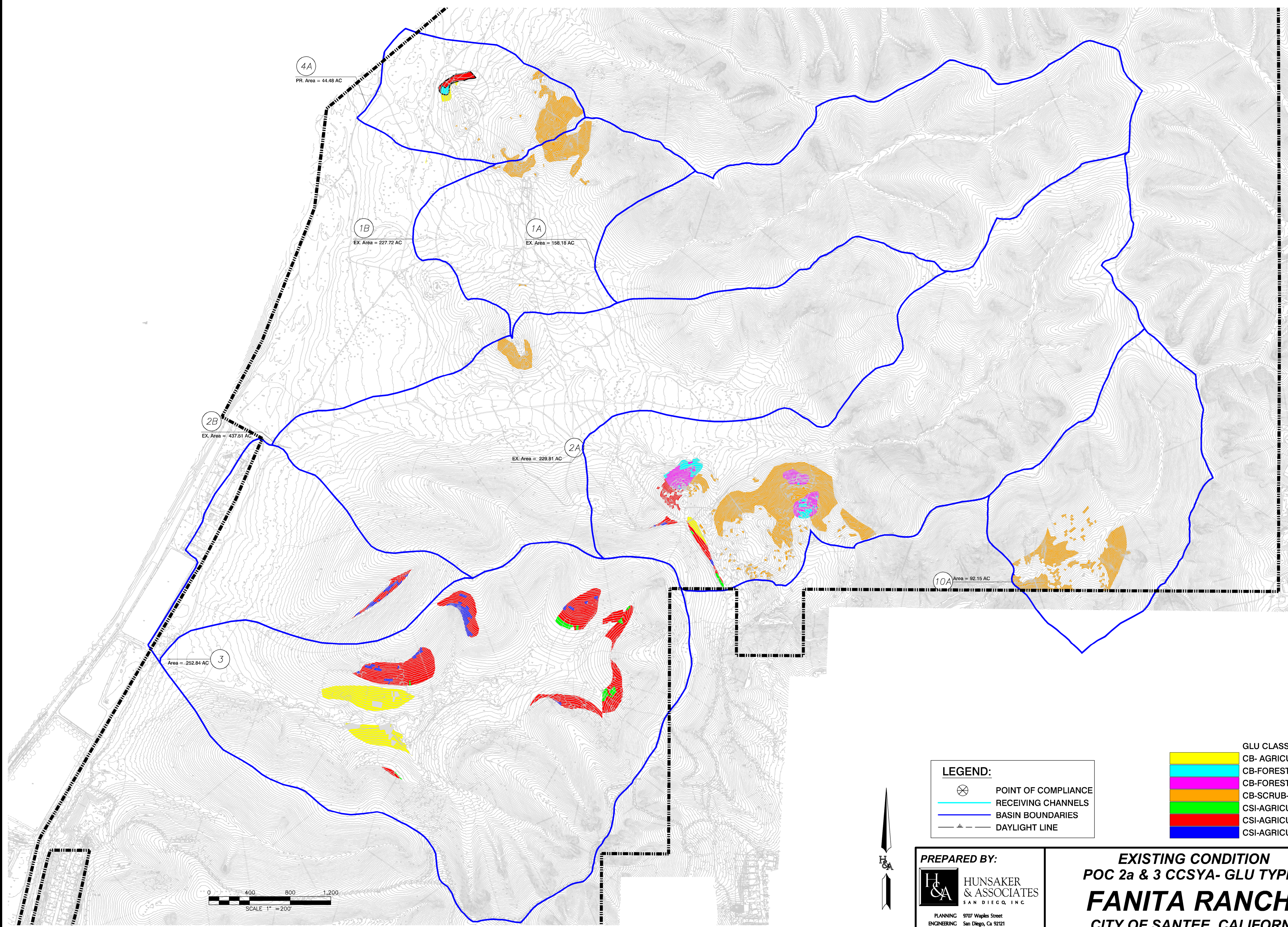
8
PR. Q100 = 216.44 CFS
PR. Area = 185.3 AC
EX. Q100 = 253.08 CFS
EX. Area = 225.34 AC

9
PR. Q100 = 51.66 CFS
PR. Area = 37.9 AC
EX. Q100 = 52.28 CFS
EX. Area = 39.2 AC

LEGEND:	
	PROPERTY BOUNDARY
	BASIN BOUNDARY
	DAYLIGHT LINE
	GEOLOGY - COARSE BEDROCK
	GEOLOGY - COARSE SEDIMENTARY PERMEABLE
	GEOLOGY - COARSE SEDIMENTARY IMPERMEABLE
	CUT AREA
	FILL AREA



<p>PREPARED BY:</p>  <p>HUNSAKER & ASSOCIATES SAN DIEGO, INC.</p> <p>PLANNING: 9707 Waples Street ENGINEERING: San Diego, Ca 92121 SURVEYING: PH8080308-0000 FAX8080308-1414</p>	<p>CUT-FILL GEOLOGY</p> <p>FANITA RANCH</p> <p>CITY OF SANTEE, CALIFORNIA</p>	<p>EXHIBIT</p> <p>2</p>
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4A
PR. Area = 44.48 AC

1B
EX. Area = 227.72 AC

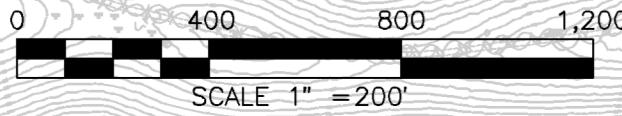
1A
EX. Area = 158.18 AC

2B
EX. Area = 437.51 AC

2A
EX. Area = 229.81 AC

10A
Area = 92.15 AC

3
Area = 252.84 AC



LEGEND:

- POINT OF COMPLIANCE
- RECEIVING CHANNELS
- BASIN BOUNDARIES
- DAYLIGHT LINE

GLU CLASSIFICATION:

- CB- AGRICULTURAL-3
- CB-FOREST-3
- CB-FOREST-4
- CB-SCRUB-4
- CSI-AGRICULTURAL-2
- CSI-AGRICULTURAL-3
- CSI-AGRICULTURAL-4

POC1B

	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0	0
CB-AG-4	0	0
CB-FOR-2	0	0
CB-FOR-3	0	0
CB-FOR-4	0	0
CB-SCR-4	3.16	2.18
Totals:	3.16	2.18

POC2A

	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.32	0
CB-AG-4	0.01	0
CB-FOR-3	0.93	0.36
CB-FOR-4	2.41	1.4
CB-SCR-4	12.78	10.5
CSI-AG-2	0.09	0
CSI-AG-3	0.73	0.03
CSI-AG-4	0.07	0
Totals:	17.34	12.29

POC2B

	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.32	0
CB-AG-4	0.01	0
CB-FOR-3	0.93	0.36
CB-FOR-4	2.41	1.4
CB-SCR-4	13.85	11.57
CSI-AG-2	0.09	0
CSI-AG-3	0.73	0.03
CSI-AG-4	0.07	0
Totals:	18.41	13.36

POC3

	EXIST (ac)	PROPOSED (ac)
CSI-AG-2	0.52	0.23
CSI-AG-3	11.33	3.27
CSI-AG-4	1.19	0.02
CB-AG-2	0.73	0.5
CB-AG-3	1.97	1.97
Totals:	15.74	5.99

POC4A

	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.21	0.21
CB-AG-4	0	0
CB-FOR-2	0.46	0.46
CB-FOR-3	0.17	0.17
CB-FOR-4	0	0
CB-SCR-4	3.79	3.6
Totals:	4.63	4.44

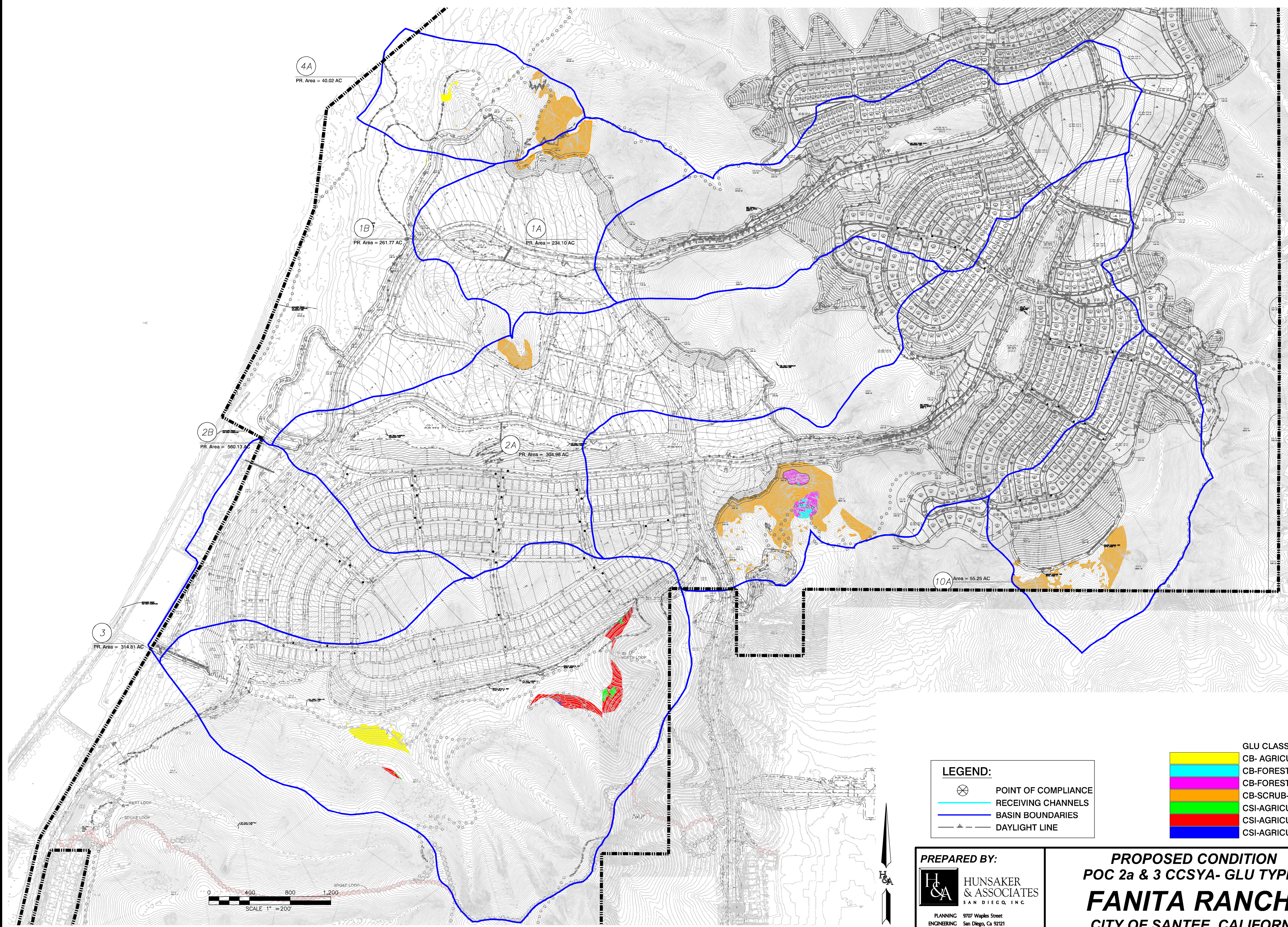
POC10

	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0	0
CB-AG-4	0	0
CB-FOR-3	0	0
CB-FOR-4	0	0
CB-SCR-4	6.73	4.79
Totals:	6.73	4.79

PREPARED BY:
 HUNSAKER & ASSOCIATES
 SAN DIEGO, INC.
 PLANNING 9707 Waples Street
 ENGINEERING San Diego, Ca 92121
 SURVEYING PH(619)558-4500 FX(619)558-1414

EXISTING CONDITION
POC 2a & 3 CCSYA- GLU TYPES
FANITA RANCH
 CITY OF SANTEE, CALIFORNIA

EXHIBIT
3a



POC1B	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0	0
CB-AG-4	0	0
CB-FOR-2	0	0
CB-FOR-3	0	0
CB-FOR-4	0	0
CB-SCR-4	3.16	2.18
Totals:	3.16	2.18

POC2A	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.32	0
CB-AG-4	0.01	0
CB-FOR-3	0.93	0.36
CB-FOR-4	2.41	1.4
CB-SCR-4	12.78	10.5
CSI-AG-2	0.09	0
CSI-AG-3	0.73	0.03
CSI-AG-4	0.07	0
Totals:	17.34	12.29

POC2B	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.32	0
CB-AG-4	0.01	0
CB-FOR-3	0.93	0.36
CB-FOR-4	2.41	1.4
CB-SCR-4	13.85	11.57
CSI-AG-2	0.09	0
CSI-AG-3	0.73	0.03
CSI-AG-4	0.07	0
Totals:	18.41	13.36

POC3	EXIST (ac)	PROPOSED (ac)
CSI-AG-2	0.52	0.23
CSI-AG-3	11.33	3.27
CSI-AG-4	1.19	0.02
CB-AG-2	0.73	0.5
CB-AG-3	1.97	1.97
Totals:	15.74	5.99

POC4A	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0.21	0.21
CB-AG-4	0	0
CB-FOR-2	0.46	0.46
CB-FOR-3	0.17	0.17
CB-FOR-4	0	0
CB-SCR-4	3.79	3.6
Totals:	4.63	4.44

POC10	EXIST (ac)	PROPOSED (ac)
CB-AG-3	0	0
CB-AG-4	0	0
CB-FOR-3	0	0
CB-FOR-4	0	0
CB-SCR-4	6.73	4.79
Totals:	6.73	4.79

LEGEND:

- POINT OF COMPLIANCE
- RECEIVING CHANNELS
- BASIN BOUNDARIES
- DAYLIGHT LINE

GLU CLASSIFICATION:

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- CB-FOREST-3
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- CSI-AGRICULTURAL-2
- CSI-AGRICULTURAL-3
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PREPARED BY:

HUNSAKER & ASSOCIATES
SAN DIEGO, INC

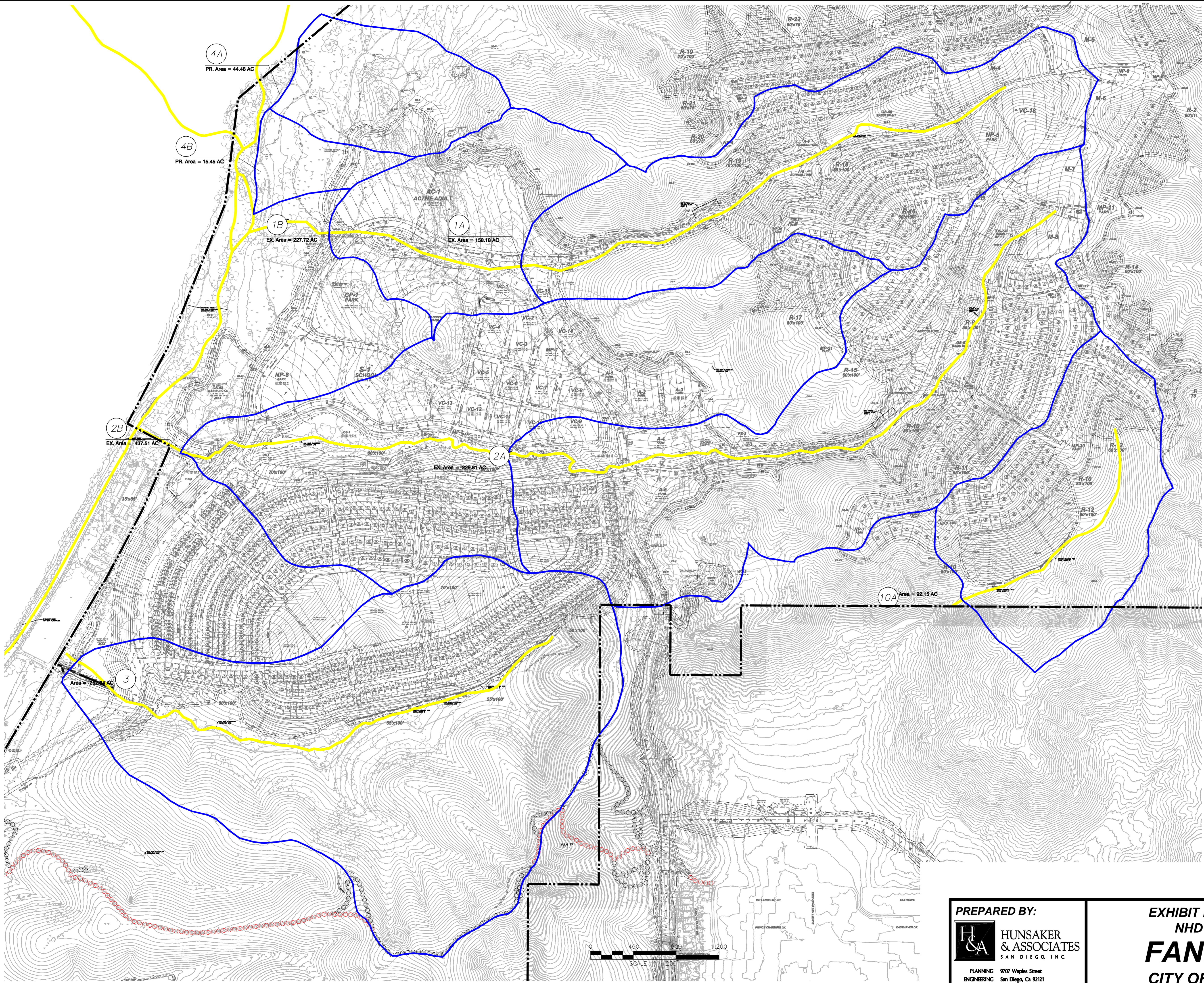
PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(619)558-4500 FX(619)558-1414

PROPOSED CONDITION
POC 2a & 3 CCSYA- GLU TYPES

FANITA RANCH

CITY OF SANTEE, CALIFORNIA

EXHIBIT
3b



4A
PR. Area = 44.48 AC

4B
PR. Area = 15.45 AC

1B
EX. Area = 227.72 AC

1A
EX. Area = 158.18 AC

2B
EX. Area = 437.51 AC

2A
EX. Area = 229.81 AC

10A
Area = 92.15 AC

3
Area = 25.04 AC

LEGEND:

- PROPERTY BOUNDARY
- BASIN BOUNDARY
- NH STREAM (PRE-DEVELOPMENT)
- POC ID NUMBER

PREPARED BY:

HUNSAKER & ASSOCIATES
SAN DIEGO, INC.

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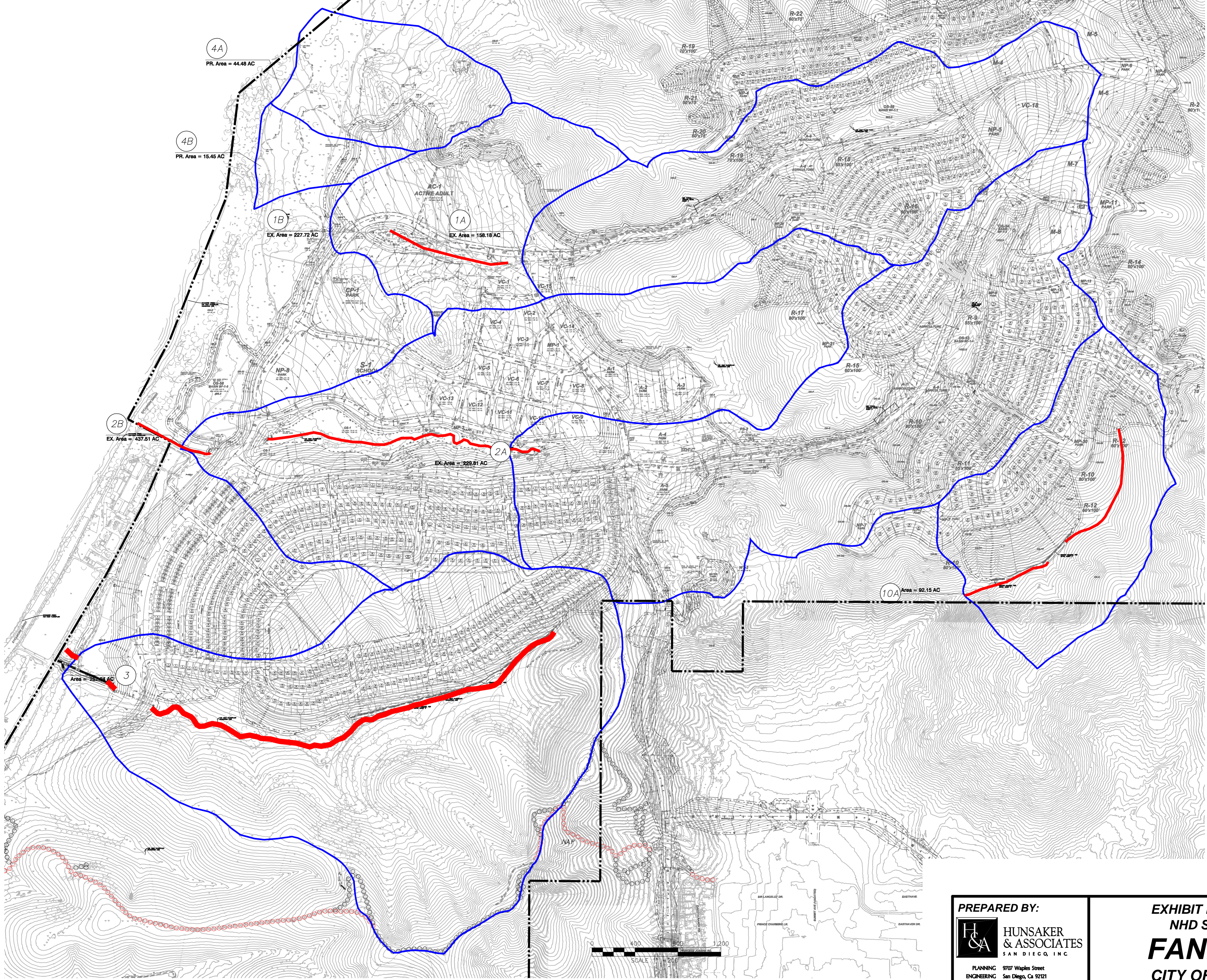
EXHIBIT POCs 1B, 2A, 2B, 4A & 10
NHD STREAMS- EXISTING

FANITA RANCH

CITY OF SANTEE, CALIFORNIA

EXHIBIT
4a

W.C. 2395-07



LEGEND:

- PROPERTY BOUNDARY
- BASIN BOUNDARY
- NH STREAM (POST-DEVELOPMENT)
- POC ID NUMBER

PREPARED BY:
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 SAN DIEGO, INC.
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EXHIBIT POCs 1B, 2A, 2B, 4A & 10
NHD STREAMS- PROPOSED
FANITA RANCH
CITY OF SANTEE, CALIFORNIA

EXHIBIT
4b