APPENDIX T — COMMUNITY RATING SYSTEM

Community Rating System (CRS). The CRS offers the greatest potential for encouraging communities to partner in development and maintenance of an elevation registry. Under the CRS, there is an incentive for communities to do more than just regulate construction of new buildings to minimum national standards. As part of the CRS program, flood insurance premiums are adjusted to reflect community activities that: (1) reduce flood damage to existing buildings, (2) manage development in areas not mapped by the NFIP, (3) protect new buildings beyond the minimum NFIP protection level, (4) help insurance agents obtain flood data, and (5) help people obtain flood insurance. Items (4) and (5) are clearly relevant to the primary purpose of an elevation registry.

Table T.1 lists credit points earned, classification awarded, and premium reductions given for communities in the NFIP CRS. This table is extracted from www.fema.gov/pdf/nfip/manual10_04/19crs.pdf.

Table T.1 — Premium Reductions for CRS Credit Points Earned

Community CRS Credit Points	Community Class	Premium Reduction - SFHA	Premium Reduction - Non-SFHA *
4,500+	1	45%	10%
4,000 - 4,499	2	40%	10%
3,500 - 3,999	3	35%	10%
3,000 - 3,499	4	30%	10%
2,500 - 2,999	5	25%	10%
2,000 - 2,499	6	20%	10%
1,500 - 1,999	7	15%	5%
1,000 - 1,499	8	10%	5%
500 - 999	9	5%	5%
0 - 499	10	0%	0%

* Preferred Risk Policies are available only in B, C, and X Zones for properties that are shown to have a minimal risk of flood damage. The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies. Although they are in SFHAs, Zones AR and A99 are limited to a 5% discount. Premium reductions are subject to change.

The objective of the CRS is to reward communities that are doing more than meeting the minimum NFIP requirements to help their citizens prevent or reduce flood losses. The CRS also provides an incentive for communities to initiate new flood protection activities. The goal of the CRS is to encourage, by the use of flood insurance premium adjustments, community and state activities beyond those required by the NFIP to:

1. Reduce flood losses, i.e.,
   - Protect public health and safety
   - Reduce damage to buildings and contents
   - Prevent increases in flood damage from new construction

- Reduce the risk of erosion damage, and
- Protect natural and beneficial floodplain functions

2. Facilitate accurate insurance rating, and

3. Promote the awareness of flood insurance

The "CRS Coordinators Manual" at www.fema.gov/pdg/nfip/crsentire.pdf indicates the activities for which CRS credits can be earned by communities. The CRS *Schedule* identifies 18 creditable activities, organized under four categories: Public Information (Series 300), Mapping and Regulations (Series 400), Flood Damage Reduction (Series 500), and Flood Preparedness (Series 600). The *Schedule* assigns credit points based upon the extent to which an activity advances the three goals of the CRS. Once it has submitted its *CRS Application*, a community must continue to implement its credited activities to keep its classification. Community responsibilities include cooperating with the ISO/CRS Specialist and verification procedures, and maintaining Elevation Certificates, other permit records, and old FIRMs forever.

The Public Information Series 300 credits programs that advise people about the flood hazard, flood insurance, and ways to reduce flood damage. These activities also provide data needed by insurance agents for accurate flood insurance rating. They generally serve all members of the community and work toward all three goals of the CRS.

- Section 300 includes the counting of buildings within the SFHA by maintaining complete records of pre-FIRM and post-FIRM buildings in floodplains, by using recent aerial photography or digital orthophotos to count the number of such buildings, or by using community staff to travel through the floodplains and count the number of buildings. Dewberry recommends that additional CRS credit points be awarded to those communities that maintain an accurate list of geocoded addresses in or near to floodplains; this is obviously worth much more than a simple count of structures.

- Section 310 provides a maximum of 162 CRS credit points for EC data, i.e., up to 56 points for maintaining FEMA ECs on all buildings built in the SFHA after date of application to the CRS; up to 56 points for maintaining ECs on buildings built before the date of application to the CRS but after initial date of the FIRM; up to 15 points if the EC data are kept and made available in computer format; and up to 20 points for putting EC data on a publicly accessible website. Impact adjustments are applied to reflect the proportion of buildings that have ECs. This section is directly relevant to the elevation registry, and providing EC data for the registry should earn additional CRS credits.

- Section 320 provides a maximum of 140 CRS credit points for providing FIRM information to inquirers, providing information on flood insurance purchase requirements, providing information on Coastal Barrier Resources System (CBRS) requirements, keeping old FIRMs and updating the maps used for the service, and advising inquirers whether the property is subject to a special flood-related hazard. This section is also relevant to the elevation registry, and providing EC data for the registry would earn additional CRS credits.

- Section 330 provides a maximum of 315 CRS credit points for community outreach projects pertaining to the local flood hazard (for example, mapping drainage areas smaller than 1 square mile); flood safety; flood insurance requirements; property protection measures; natural and beneficial functions of the local floodplain; a map of the local flood hazard; the flood warning system; floodplain development permit requirements; substantial improvement/damage requirements; and drainage system maintenance. The elevation registry will help define flood insurance requirements, earning CRS credits for this section. Mecklenburg County, NC, for example, provides ECs on demand and has multiple programs to encourage the purchase of flood insurance; these programs are especially effective when home owners can see elevation data for their home that compares their lowest floor elevation with the BFE.

- Section 340 provides a maximum of 81 CRS credit points for real estate agent disclosure of flood hazards and flood insurance purchase requirements to those interested in purchasing properties located in the SFHA, other disclosure requirements, real estate agents' brochure, and disclosure of other hazards such as erosion, subsidence, or wetlands. A community's support of FEMA in establishing a web site that facilitates the search (by real estate agents and/or individuals) of flood hazard information, and other initiatives to get real estate agents to routinely use this service, should earn additional CRS credit points for this support.

- Section 350 provides a maximum of 66 CRS credit points for a flood protection library, locally pertinent documents, and flood protection website. Community flood protection websites should provide links to FEMA's elevation registry.

- Section 360 provides a maximum of 71 CRS credit points for flood protection technical assistance. The elevation registry could include site-specific flood data, information on historical flooding, repetitive losses, floor elevations and other information that would enable the local CRS or NFIP coordinator to provide one-on-one advice to property owners.

The Mapping and Regulations Series 400 credits programs that provide increased protection to new development. These activities include mapping areas not shown on the FIRM, preserving open space, enforcing higher

regulatory standards, and managing stormwater. The credit is increased for growing communities. These activities work toward the first and second goals of the CRS, damage reduction and accurate insurance rating.

- Section 410 provides a maximum of 1,373 CRS credit points for additional flood data, including regulatory flood elevations, additional data standards for a new study, more restrictive floodway standard, additional flood data for special hazards, and CTP agreements. If community input to the elevation registry included higher standards, either community wide or address-specific, it is possible that additional CRS credit points could be earned.

- Section 420 provides a maximum of 900 CRS credit points for open space preservation. This section appears to have no relevance to the elevation registry.

- Section 430 provides a maximum of 700 CRS credit points for managing the development of land in ways that minimize construction of buildings in the floodplain. Community-provided photogrammetric or LIDAR data could be used in conjunction with regulations that discourage construction of buildings in floodprone areas or encourage low density zoning.

- Section 440 provides a maximum of 231 CRS credit points for flood data maintenance, including additional map data that improves access, quality, and/or ease of updating flood data within the community. Ease of updating flood data is exactly why this report emphasizes the importance of community address lists that are accurately geocoded for all structures in or near floodplains. Communities would need to retain the old BFE, but they could update the registry with new BFEs, useful for new additions or new elevation requirements if substantially damaged.

- Section 450 provides a maximum of 670 CRS credit points for stormwater management regulations, stormwater management master plan, freeboard for new buildings in B, C, D, and X zones, erosion and sedimentation control regulations, and water quality regulations. Many communities initially acquire their high accuracy LIDAR data for stormwater management purposes, while also serving floodplain management and other applications. Thus, a community decision to acquire high accuracy LIDAR data could be used for multiple purposes and also earn additional CRS credit points in this section.

The Flood Damage Reduction Series 500 credits programs for areas in which existing development is at risk. Credit is provided for a comprehensive floodplain management plan, relocating or retrofitting floodprone structures, and maintaining drainage systems. These activities work toward the first goal of the CRS, damage reduction.

- Section 510 provides a maximum of 309 CRS credit points, most points being earned for adopting and implementing a floodplain management plan that was developed using a specified standard planning process. A community's implementation of actions recommended in this report for populating an elevation registry could form a major component of this floodplain management plan, earning additional CRS credits in multiple categories.

- Section 520 provides a maximum of 3,200 credit points for buildings acquired or relocated, especially repetitive loss structures. Since the elevation registry is intended to include information on structures previously flooded, this should serve to earn additional CRS credit points. Furthermore, communities that use their elevation registry information correctly could identify those structures with the highest probability of being flooded in the future, i.e., candidates for acquisition/relocation initiatives.

- Section 530 provides a maximum of 2,800 credit points for structural flood control projects and sewer backup protection projects. Dewberry is aware of one community that used an EC-type database to compute the benefit-cost ratio used to justify the construction of a new concrete box culvert to replace an undersized culvert that caused back-up which flooded properties upstream. Provision of objective justification and cost modeling data is an added benefit of an elevation registry.

- Section 540 provides a maximum of 330 points for drainage system maintenance. This section appears to be non applicable to the elevation registry.

The Flood Preparedness Series 600 credits flood warning, levee safety, and dam safety programs. These activities work toward the first and third goals of the CRS, damage reduction and hazard awareness.

- Section 610 provides a maximum of 225 CRS credit points for a flood threat recognition system, emergency warning dissemination, other response efforts, critical facilities planning, and StormReady community designation. The elevation registry, as presented in this report, includes essential information necessary for a flood threat warning system for individual structures.

- Section 620 provides a maximum of 900 CRS credit points for levee safety. While not improving the safety of levees themselves, elevation registry information can be used to identify structures that would be inundated by a levee breach, and, combined with HAZUS, can be used to estimate the cost to a community as a result of a breached levee. This information would be especially relevant should communities need to consider whether or not to deliberately breach a levee to flood farmlands, for example, in order to spare a city that would otherwise be flooded. CRS communities protected by levees

should have a greater incentive for cooperating with FEMA in development and maintenance of an elevation registry.

- Section 630 provides a maximum of 175 CRS credit points for dam safety. Some communities already use EC databases to determine which structures would be inundated by floods should there be a catastrophic dam breach, flooding structures downstream and possibly destroying them completely. CRS communities immediately downstream from dams should therefore have a greater incentive for cooperating with FEMA in development and maintenance of an elevation registry.