**Supplemental Guidance**

**To**

USDA Earned Value Management (EVM) Implementation Guide, DM XXXX-XXX

1. **Background**

There are misconceptions that EVM techniques are too difficult to implement effectively on an agile project and EVM could not easily cope with changing requirements. This has been shown not to be the case by many practitioners whom have adopted a streamline set of EVM guidelines adapted for agile-based development.

1. **Purpose**

The purpose of this supplement is to provide supplemental implementation and reporting guidance for investments utilizing agile development philosophy that are subject to the USDA Earned Value Management Directive, DR XXXX-XXX. This supplement provides a more streamline set of guidelines allowing for flexibility in keeping with core principles of the agile framework.

1. **Getting Started Assumptions:**
2. For a USDA investment, the Product Backlog does not represent the entire scope of the project, because the Product Backlog does not include work such as materials and equipment acquisition, facilities build-out, program management, contract monitoring, etc. EVM tracking and reporting for these areas is the same as it would be for any other development, modernization, and enhancement (DME) investment.
3. Program and project management earn value as an Apportioned Effort (AE) since these tasks do not appear in the Product Backlog. Other level of effort type activities are also candidates for the AE earned value measurement technique.

Apportioned Effort Example:

Project Management is set equal to 5% (An ***apportioned*** of the release) of whatever is earned in the release. At the end of the first monthly reporting period, you earn 10 points for the completion of the Story. Project Management earned value is 5% x [(10/total points in release) x estimated cost of release].

1. A Product Backlog is not static and can change. When it does change, earned value accumulated (earned) in prior periods does not change. The value available to earn for future periods will change to reflect the number of points in the release. If proposed additions or deletions of items in the backlog changes the features already defined for the release, the proposed change should go through the designated change control process. Otherwise it is assumed the value of additions to the backlog equals the value of deletions and vice versa.
2. Rules for earning points are 0/100: 0 points for stories in progress or incomplete stories. 100% of the points for completed *and accepted stories*. The definition of completed (done) and accepted stories are defined by the agile team working at the direction of the business customer.
3. Stories are assigned points from 1 to 100. Stories that are assigned 1 story point are small, well defined, and can be completed in one sprint; stories that are assigned 100 story points are large, not well defined, and will take several sprints to complete.
4. In EVM, “Value” represents the volume of work completed. This is not the same as “Value” in the agile Framework which represents value to the business.
5. **Organizing Investments with Agile Components**

USDA Agency/Staff Offices are encouraged to organize agile projects within an investment to maximize benefit for team continuity, reporting, and work efficiency by aggregating those projects in support of a release. If there is no benefit or business value in adding an agile project to a release, then the project should be considered for another release. Please refer to the following sample Investment organization illustrated in Figure 1.



Figure 1

1. **Reporting**
2. Investments reporting EVM data should submit a monthly EVM report that consist of Earned Value, Planned Value, and Actual Cost cumulative numbers. USDA Agencies/Staff Offices should aggregate this data across agile projects supporting a release and report each month at the Investment level. The attached template can be used to seamlessly generate the EVM monthly report. Instructions for using the AgileEVM Jumpstart template are included within the template and found below.

Template Instructions: 

* Step 1: Delete all sample data in cell **C1** and columns **B**, **D**, **I**, and **K**.
* Step 2: Enter an estimated dollar value of the pending release in cell **C1**
* Step 3: Completely fill in the estimated Velocity Planned Percent in column **I**. (Format example: 4%, 9%, 30%). Enter this data for every period through the target release date. If your release target is in 6 months, the table will show a Velocity Planned Percent for each month through month (Period) 6.
* Step 4: Enter the total points in the release (estimated) as of the current reporting period in column B. This number represents the total number of points expected to be associated with this release. This number may change from period to period as requirements change. Always reflect the current point total in column B as requirements/number of Story points evolve.
* Step 5: In column **D**, enter the total points earned for completed/accepted stories each month.
* Step 6: In column **K**, enter the total actual cost burned each month by the Agile team(s). Total team hours x rates should be used to calculate the actual cost. (Note: It is not necessary to await receipt of invoices to compute your actual cost. Just accrue labor cost for reporting purposes).

1. After completing the above six steps, the template will generate the EVM monthly report data (EV, PV, AC) on the EVM Report tab (worksheet). Aggregate this data with the other non-Agile DME Investment data (if any) and submit the Investment’s BAC, EV, PV, AC numbers to the USDA EVM Repository located at [To Be Determined]. This concludes the monthly EVM reporting requirement.
2. **Definitions:**

**Apportioned Effort** – EVM measurement method used when work is non-discrete (e.g., Program Management, Contract Administration). A non-discrete activity or work package accrues EV as a percentage of a discrete work package earns value.

**Points** – Each story is awarded a number of points based on the level of definition and effort required to deliver. A high number means the story is less defined and more effort is required.

**Product Backlog** – A prioritized list of features to be delivered.

**Sprint** – A two or four week period during which the delivery team develops product features.

**Stories** – A description of a feature. A story should be **clear, feasible, and testable.**

**Velocity** – An estimate of the **amount of work a team can complete in a given** [**Sprint**](http://www.scruminc.com/the-sprint/)**.**

**Release** – A release includes several increments of a system from multiple sprints.

1. **Inquiries:**

The point of contact for this supplemental guidance is the Information Resource Management (IRM) ACIO.