

2020 Census 06. Geographic Programs Operation (GEOP)

Version: 3.2

Revision Date: December 12, 2018



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Note: The detail pages of this BPM have been moved as appendix (Decision made during GEOP JAD session on 9/11/2017)

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Major Revision Change History

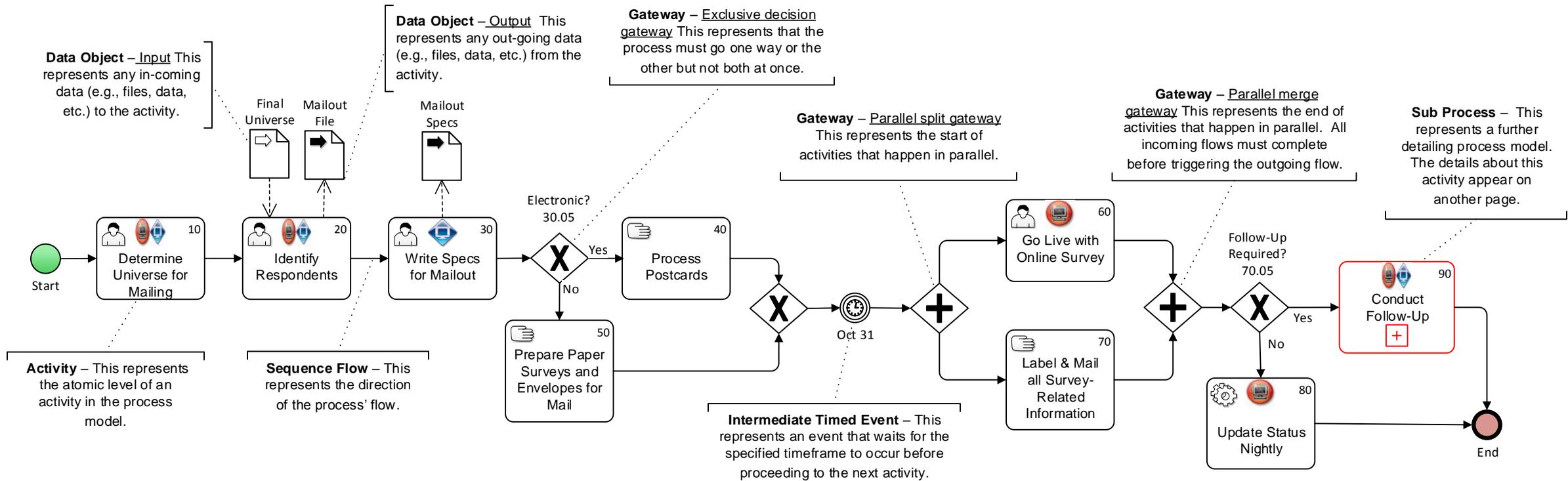
Date	Description	Author	Version #	Page #'s
04/24/2015	Baseline 1.0 for Collection Geo and Geo Data Processing	Marie Jones	1.0	All
07/30/2015	Baseline 1.0 for all other GEO operations	Marie Jones	1.0	All
12/03/2015	Updated Geographic Data Processing	Marie Jones	1.1	9, 10,11
12/18/2015	Updated Geographic Data Processing	Marie Jones	2.0	10, 12, 13, 14
07/14/2016	Updated Geographic Data Processing	Sha Alston	2.1	All
08/25/2016	Updated all GEOP components	Sha Alston	2.2	All
09/21/2016	Updated due to Mitre feedback	Monique Stevenson	2.3	1, 3, 4, 8, 35
09/26/2016	Updated due to Mitre feedback	Monique Stevenson	2.4	20,21,22,25,29
03/30/2017	Updated BPM after overall review with SMEs for March baseline.	Dan Ladino Chidinma Oyedokun	2.5	All
04/21/2017	Updated BPM based on changes proposed in preparation for SRR	Dan Ladino	2.6	
09/11/2017	Updated BPM based on JAD session. Moved the detailed pages to the Appendix section	Dan Ladino	2.7, 2.8	
11/7/2017	Removed flow 100 and 120 from the main flow (now in Appendix)	Dan Ladino	2.10	
12/05/2017	BASELINE 3.0	Dan Ladino	3.0	All

Reading and Understanding the Model

Example Activity Model

BPM Purpose

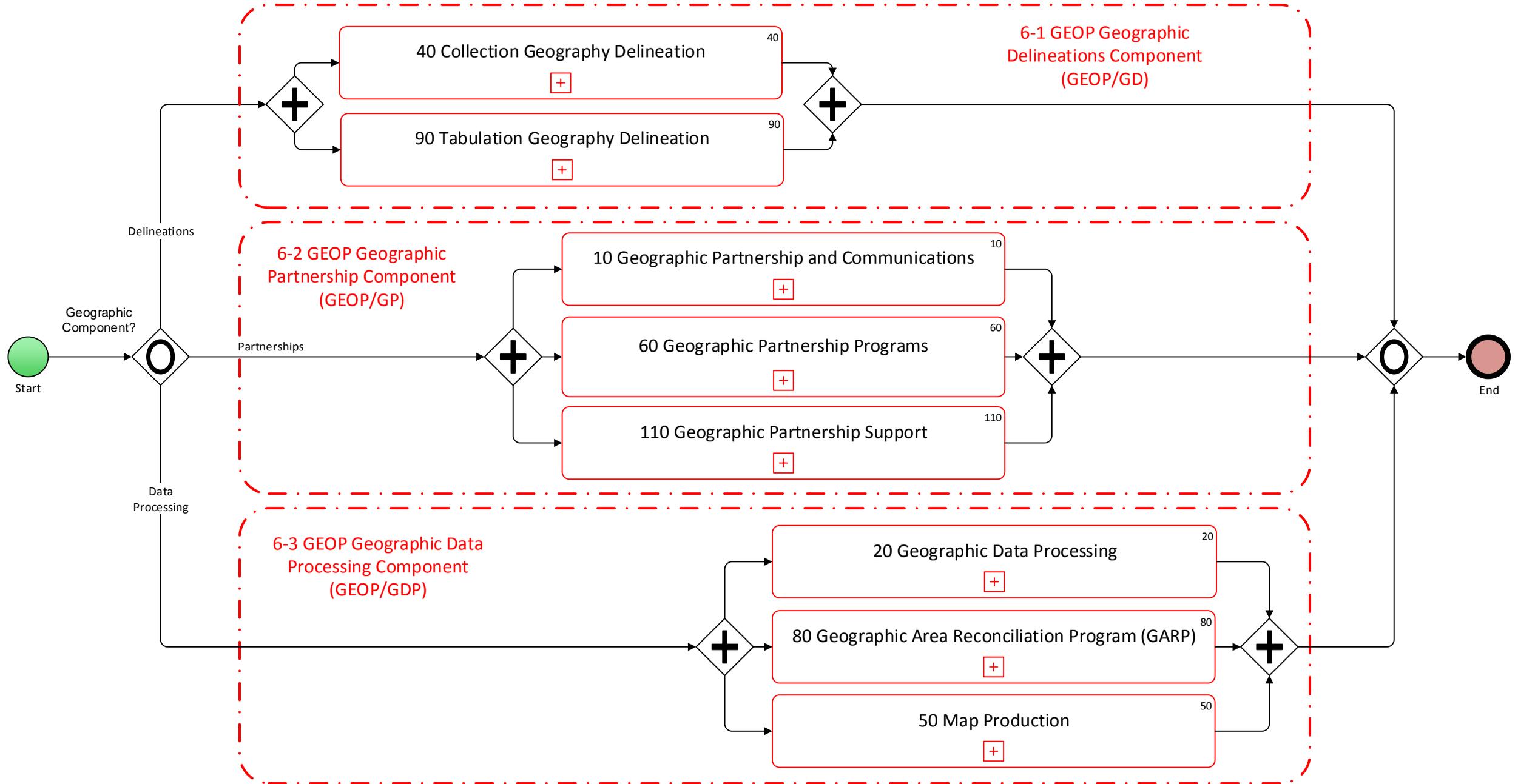
- Describe Census Operations business processes – activities, resources and key milestones
- Provide the details necessary for non-subject matter experts to understand the business process
- Contribute to the requirements development process
- Facilitate the linkage of business processes to IT capabilities
- Capture Operations inputs and outputs



Key:	Activities	Gateways	Data Objects	Other
Events	Activity at atomic level:	Exclusive:	Input:	Sequence Flow:
Start:	Activity containing a sub process:	Parallel:	Output:	Association:
End:	Activity involving: → USER interacting with a system or software:	Event Based:	Data Store:	Annotation:
Intermediate Timed Event:	→ MANUAL activity (no system/software involved):			<small>This file is created by the SME before this process kicks off.</small>
Flow continued on another page:	→ SERVICE or batch processing:			
Flow continued from another page:	→ SENDING a message:			
	→ RECEIVING a message:			
	→ RECURRING steps:			
	<small>Note: If numbering, number by 10s to leave room for additional activities between initial activities, just in case they are needed.</small>			
	Optional Activity Numbering:			
	→ Any system developed specifically for Census' use:			
	→ Both a system developed specifically for Census' use <u>and</u> COTS products:			
	→ Any commercial-off-the-shelf (COTS) products:			

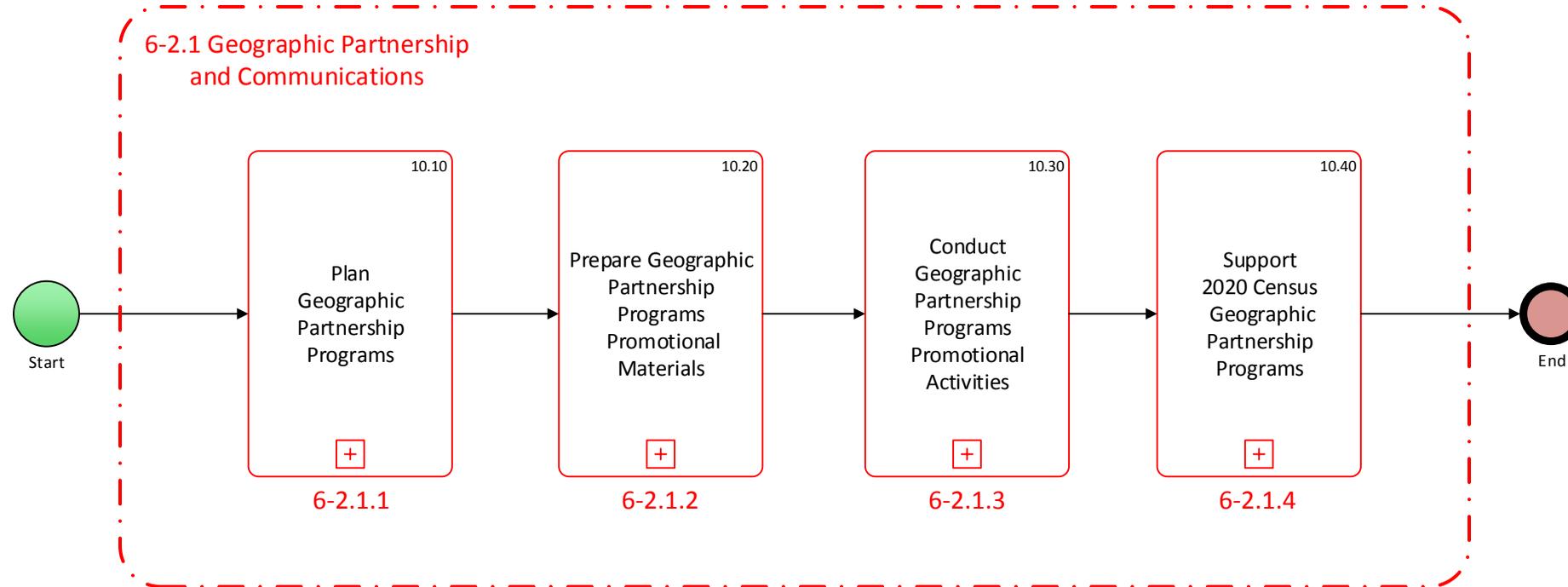
2020 Census 06. Geographic Programs Operation (GEOP)

Purpose: To provide the geographic foundation in support of the 2020 Census data collection and tabulation activities within the Master Address File/ Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System.



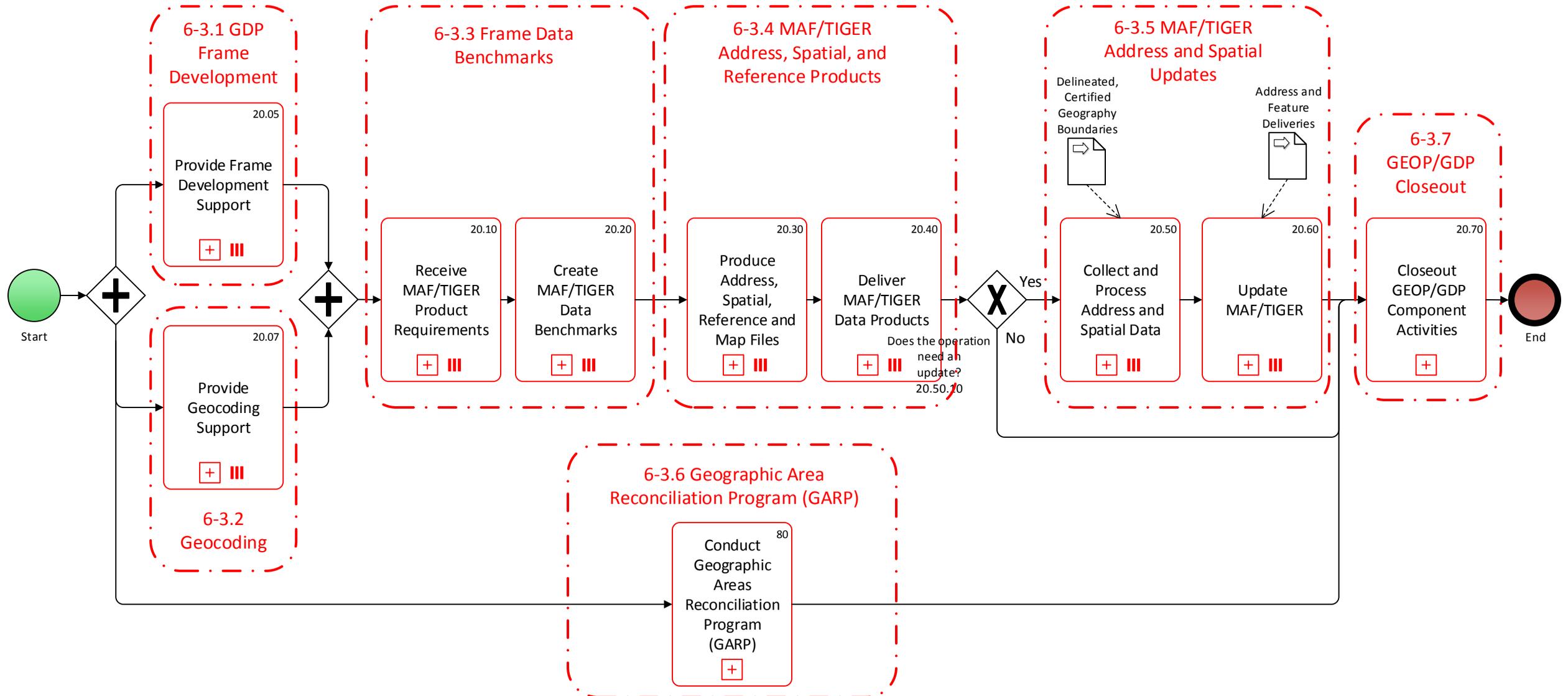
2020 Census 06. Geographic Programs Operation (GEOP) – Geographic Partnership and Communications

Purpose: To show the activities associated with creating and disseminating partnership promotional activities using various dissemination modes to inform partners about the 2020 Geographic Partnership Programs



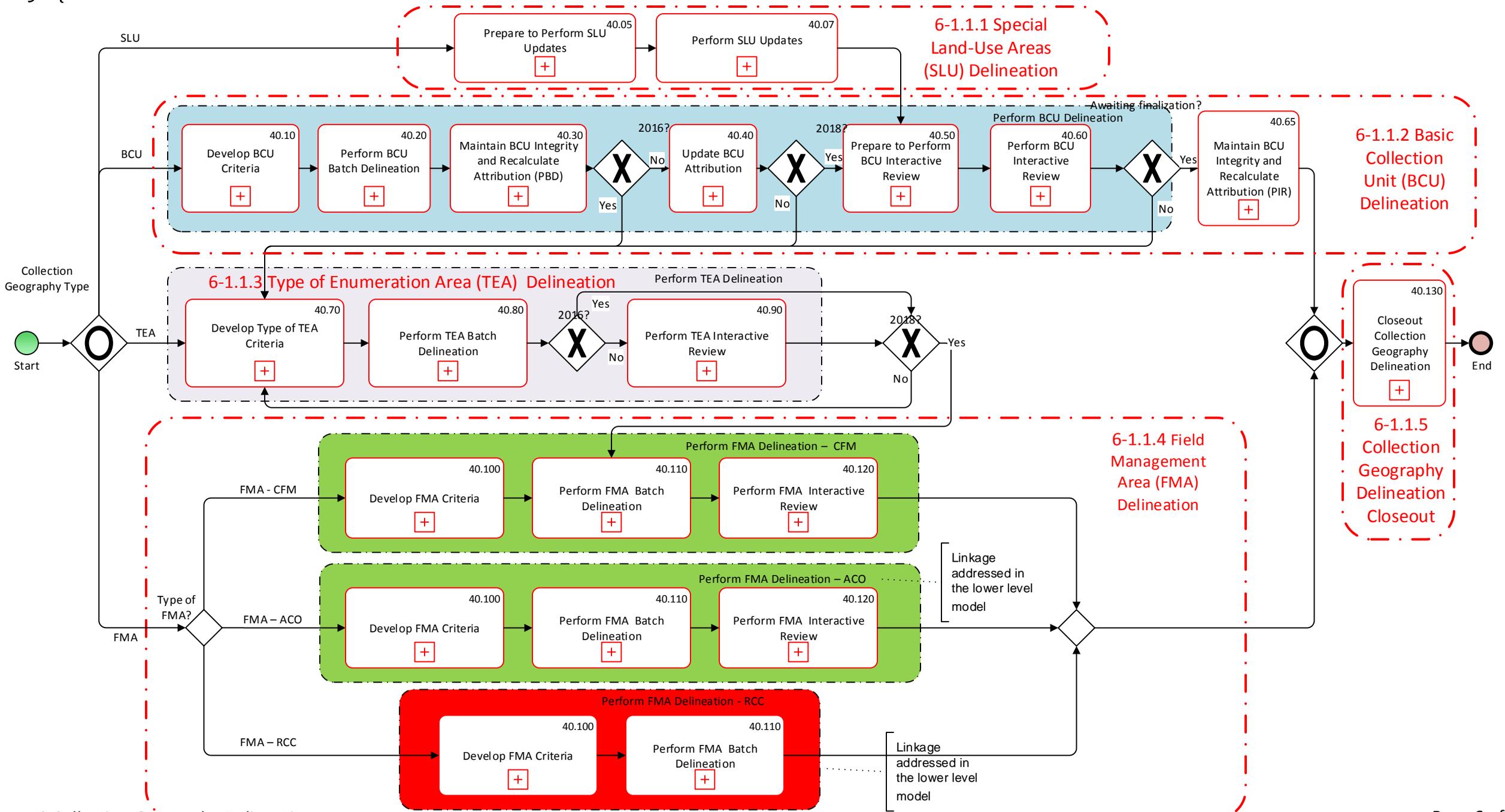
2020 Census 06. Geographic Programs Operation – Geographic Data Processing (GEOP/GDP)

Purpose: To show the processing which supports geographic programs, field work, evaluations, MAF/TIGER maintenance and any area that needs geographic products or services to support the Census.



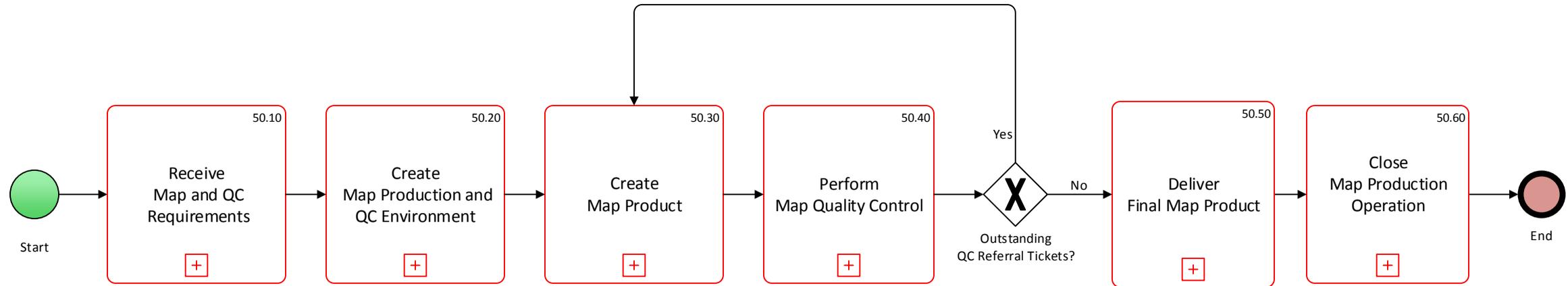
2020 Census 06. Geographic Programs Operation (GEOP) – 40 Collection Geography Delineation

Purpose: To determine, delineate, and update the Geographic Area Boundaries for 2020 Census Data Collection.



2020 Census 06. Geographic Programs Operation (GEOP) – Map Production

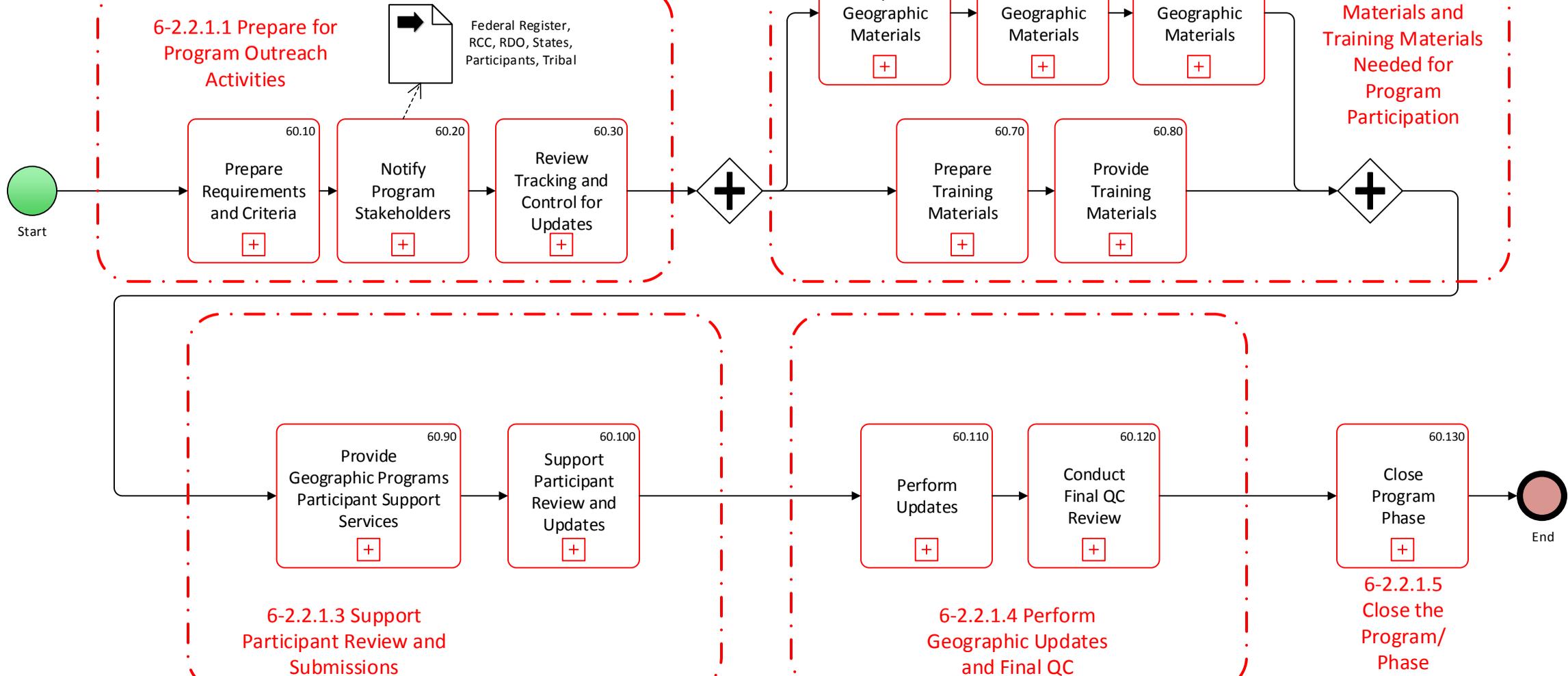
Purpose: To show the high level workflow for producing Census maps



2020 Census 06. Geographic Programs Operation (GEOP) – Geographic Partnership Programs

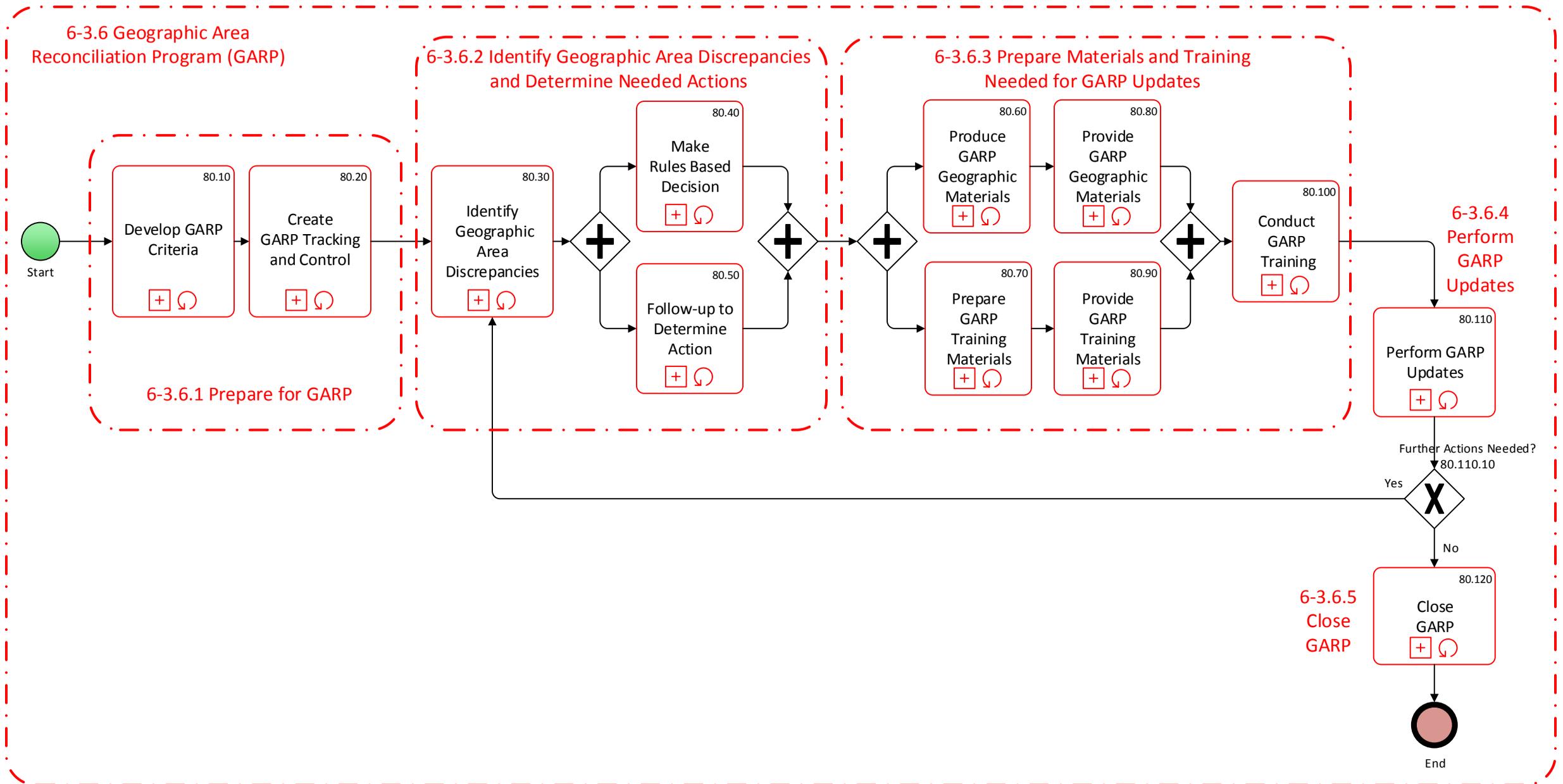
Purpose: To determine, delineate, and update the geographic area boundaries with partners for Geographic Partnership Programs.

6-2.2.1 Generalized Geographic Partnerships (GP) Program Process



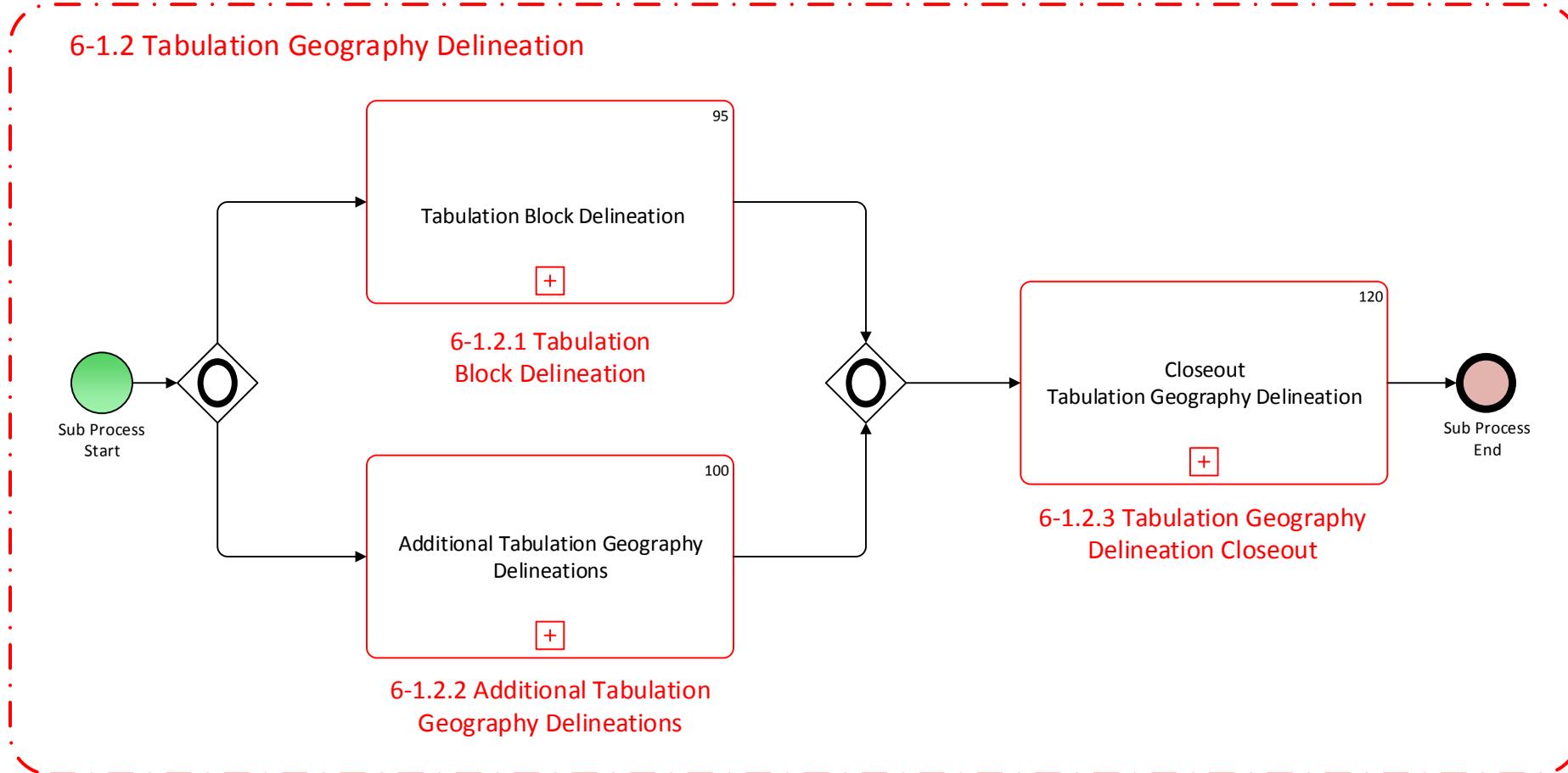
2020 Census 06. Geographic Programs Operation (GEOP) – Geographic Areas Reconciliation Program (GARP)

Purpose: To show the activities associated with reconciling discrepancies between boundaries or features



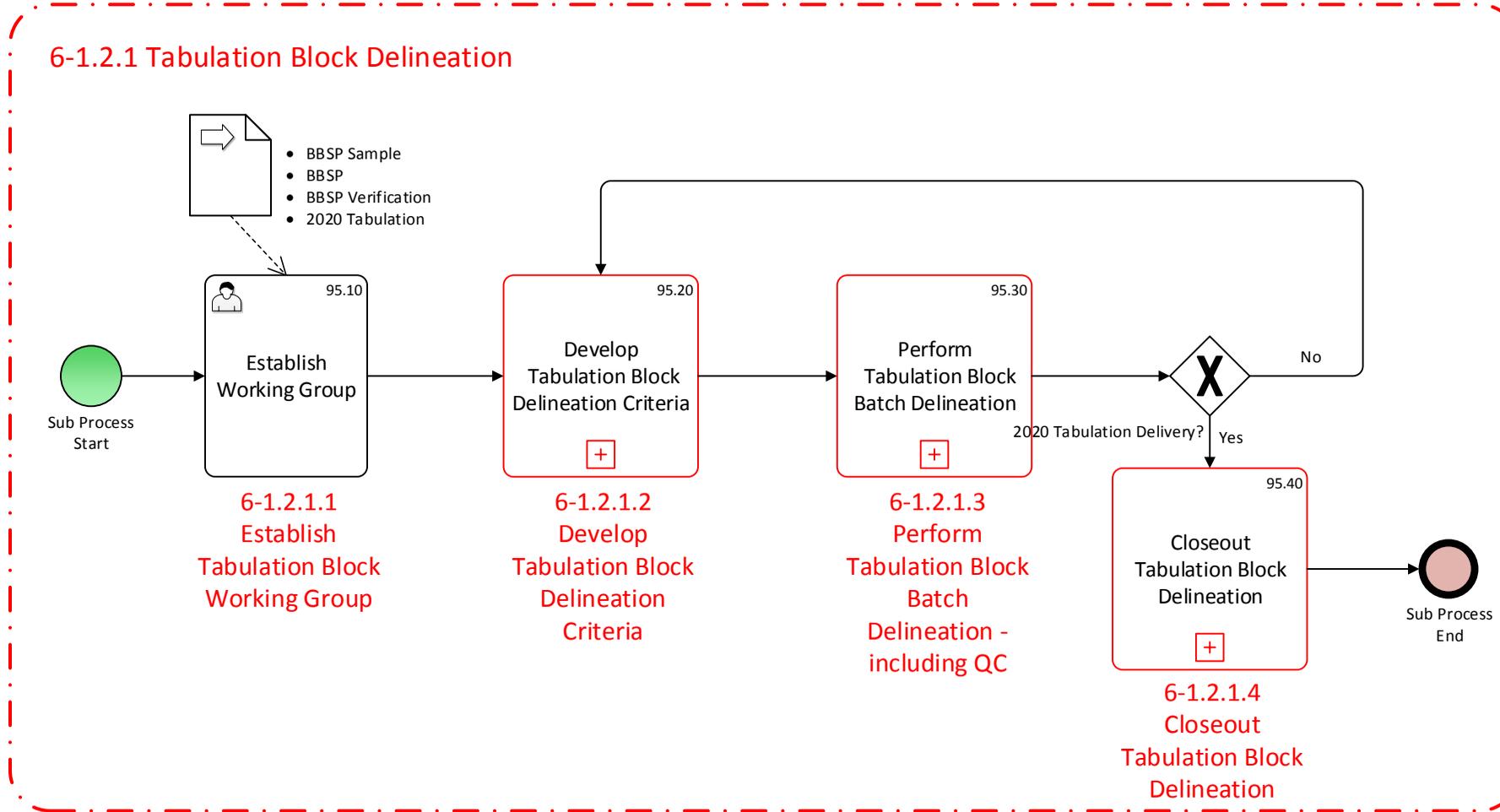
2020 Census 06. Geographic Programs Operation (GEOP) – 90 Tabulation Geography Delineation

Purpose: To provide updates to the legal, statistical, and administrative boundary data that is entered into the MAF/TIGER Database and used to delineate the tabulation geography



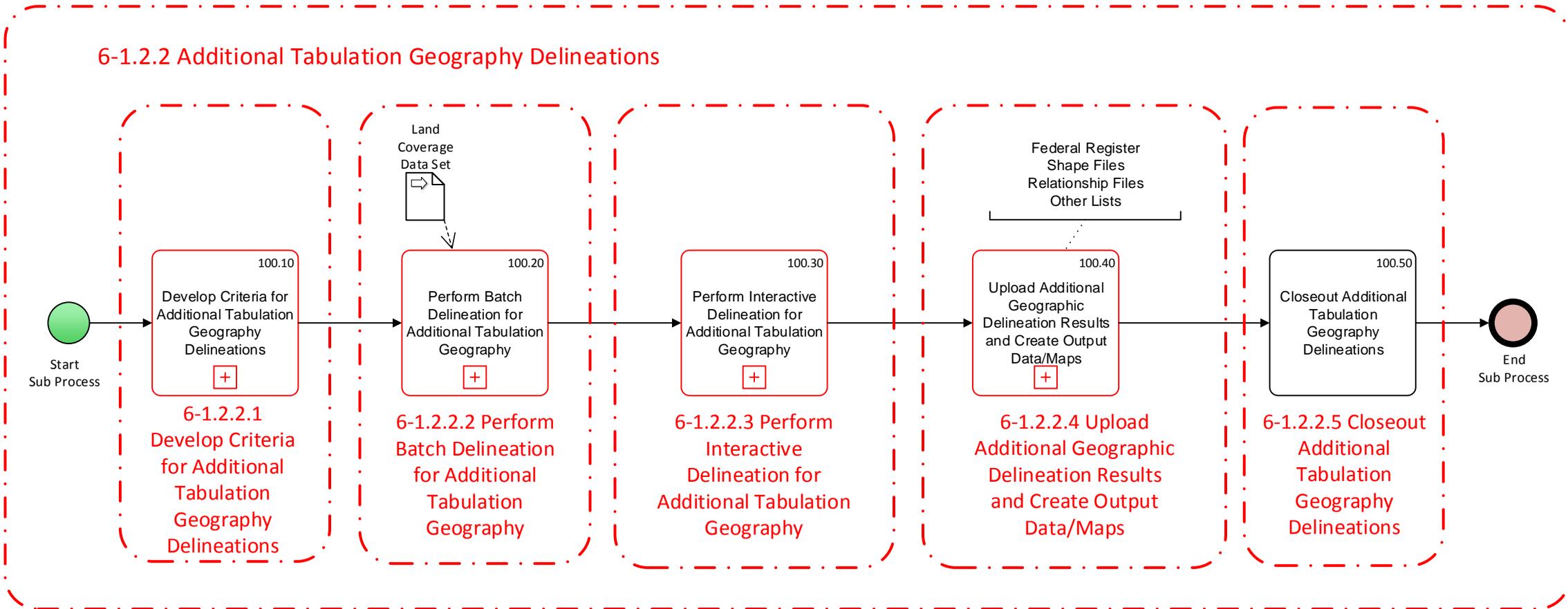
95 Tabulation Block Delineation

Purpose: To determine, delineate, and update the Geographic Area Boundaries for 2020 Census tabulation blocks



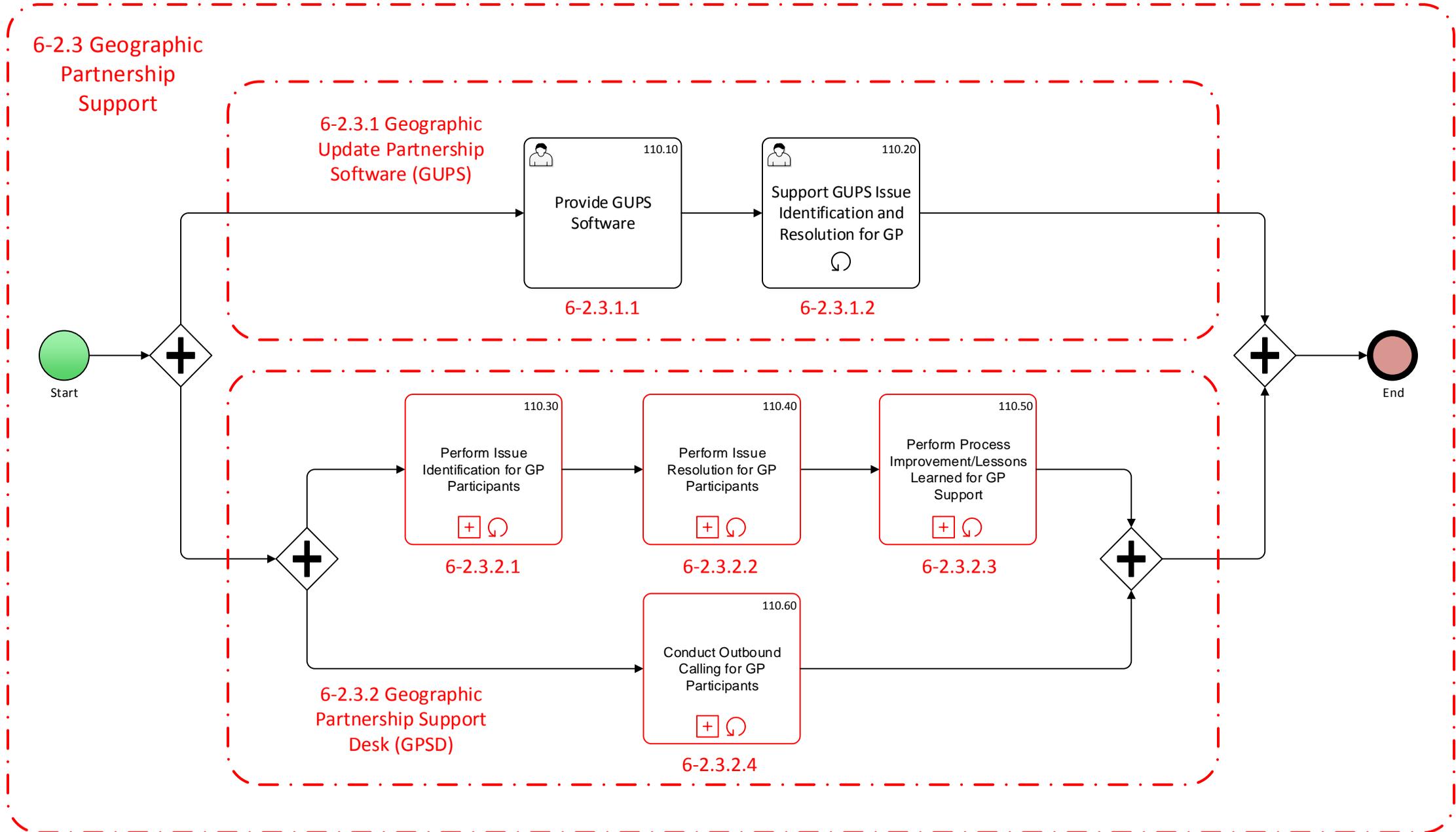
100 Additional Tabulation Geography Delineations

Purpose: To show the processes associated with ZCTA and Urban Area Delineations



110 Geographic Partnership Support

Purpose: To show the sub-processes and activities associated with the 2020 Geographic Partnership Support activities



2020 Census 06. Geographic Programs Operation (GEOP) - Appendix

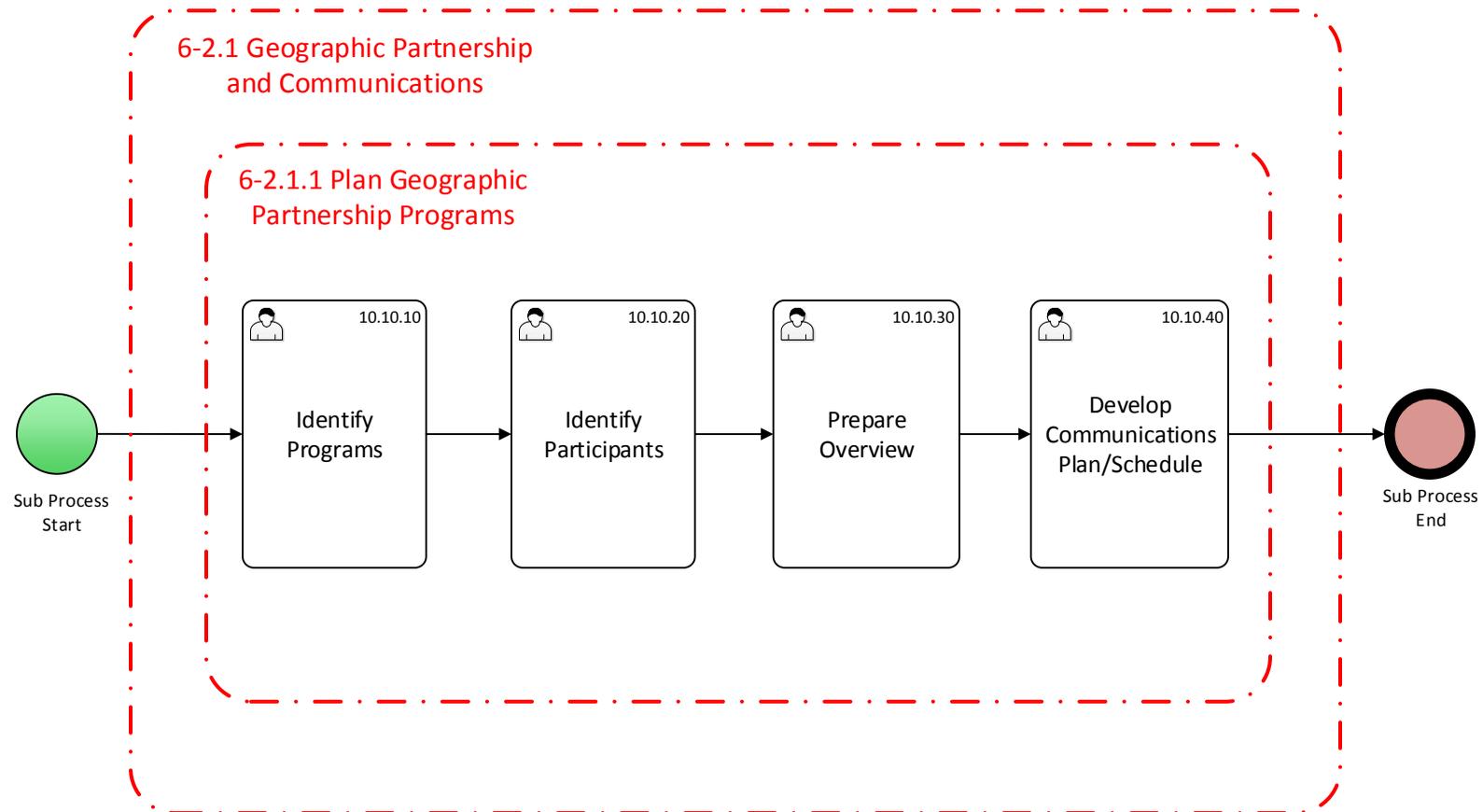


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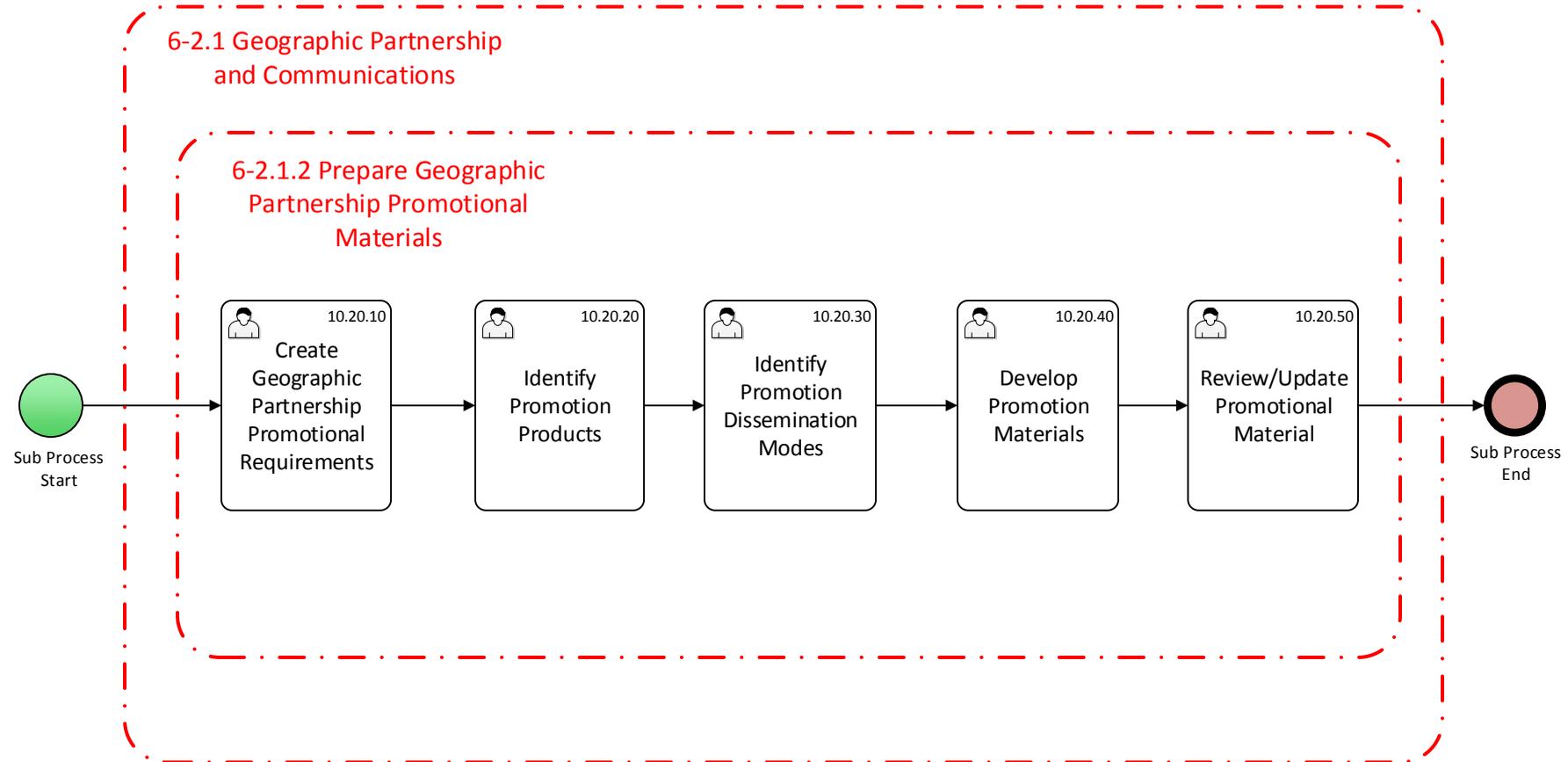
10.10 Plan 2020 Geographic Partnership Programs

Purpose: To show the activities associated with planning and creating the communications plan and associated schedule.



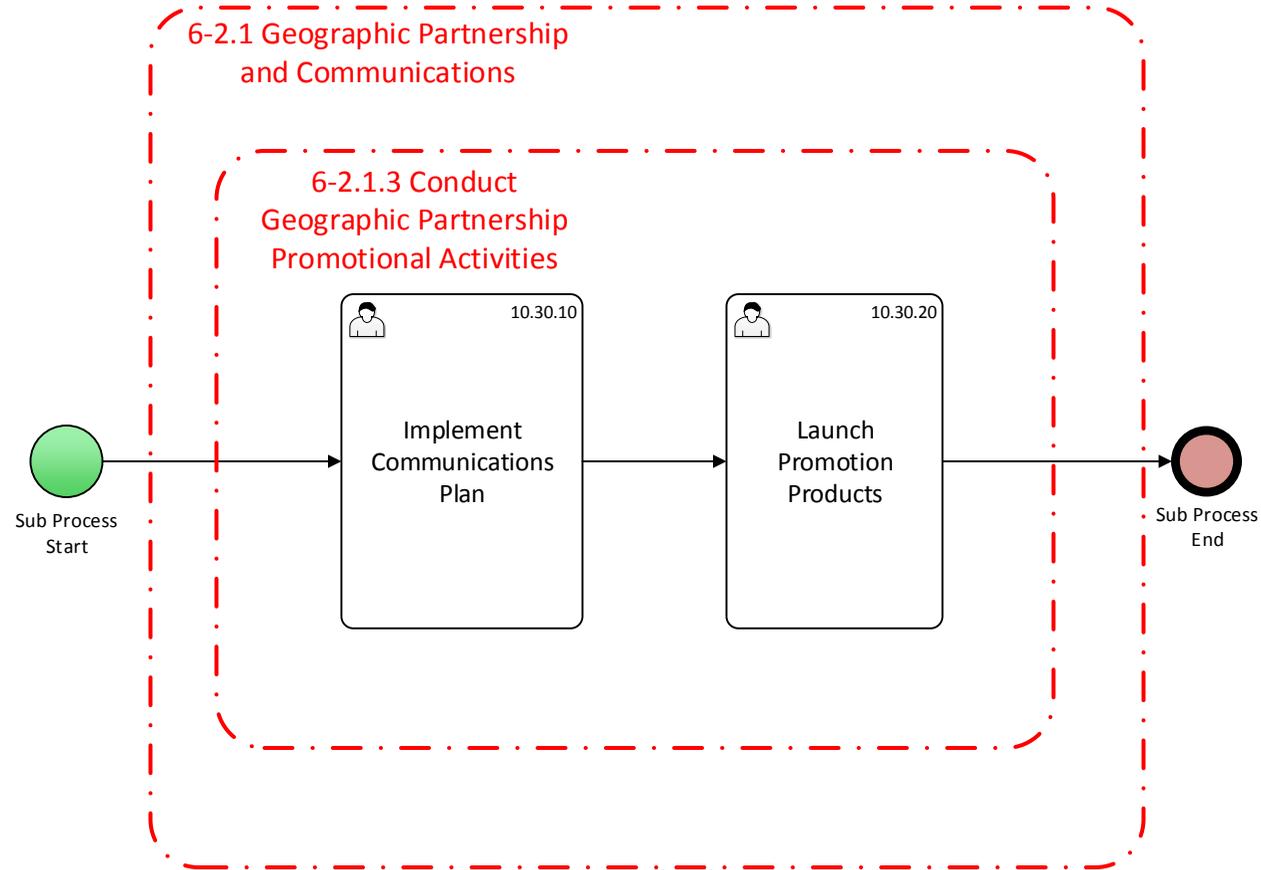
10.20 Prepare Geographic Partnership (GEOP) Promotional Materials

Purpose: To show the activities associated with creating the promotion materials



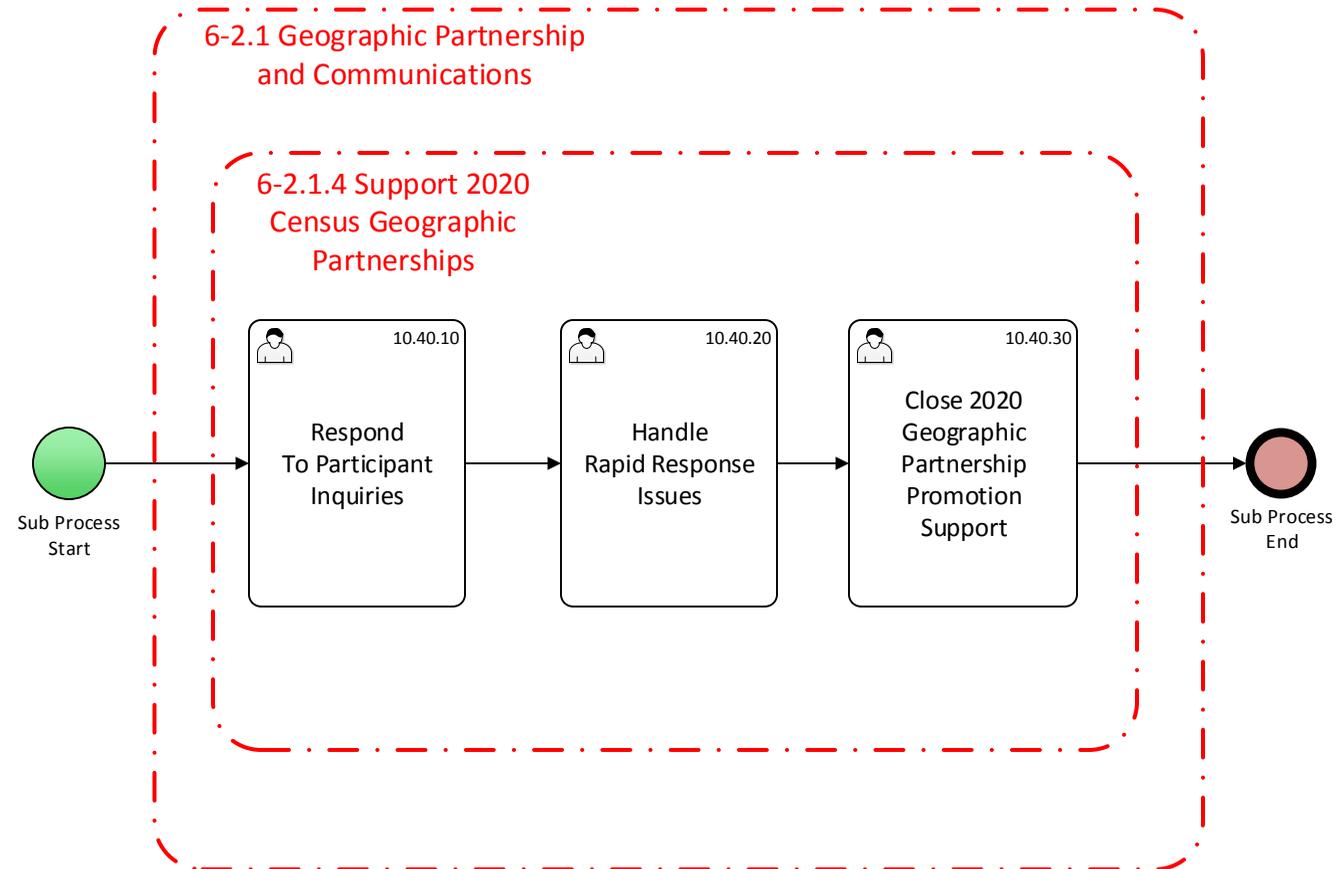
10.30 Conduct Geographic Partnership Promotional Activities

Purpose: To show the activities associated with executing the communication activities associated with the promotion products launch



10.40 Support 2020 Census Geographic Partnerships

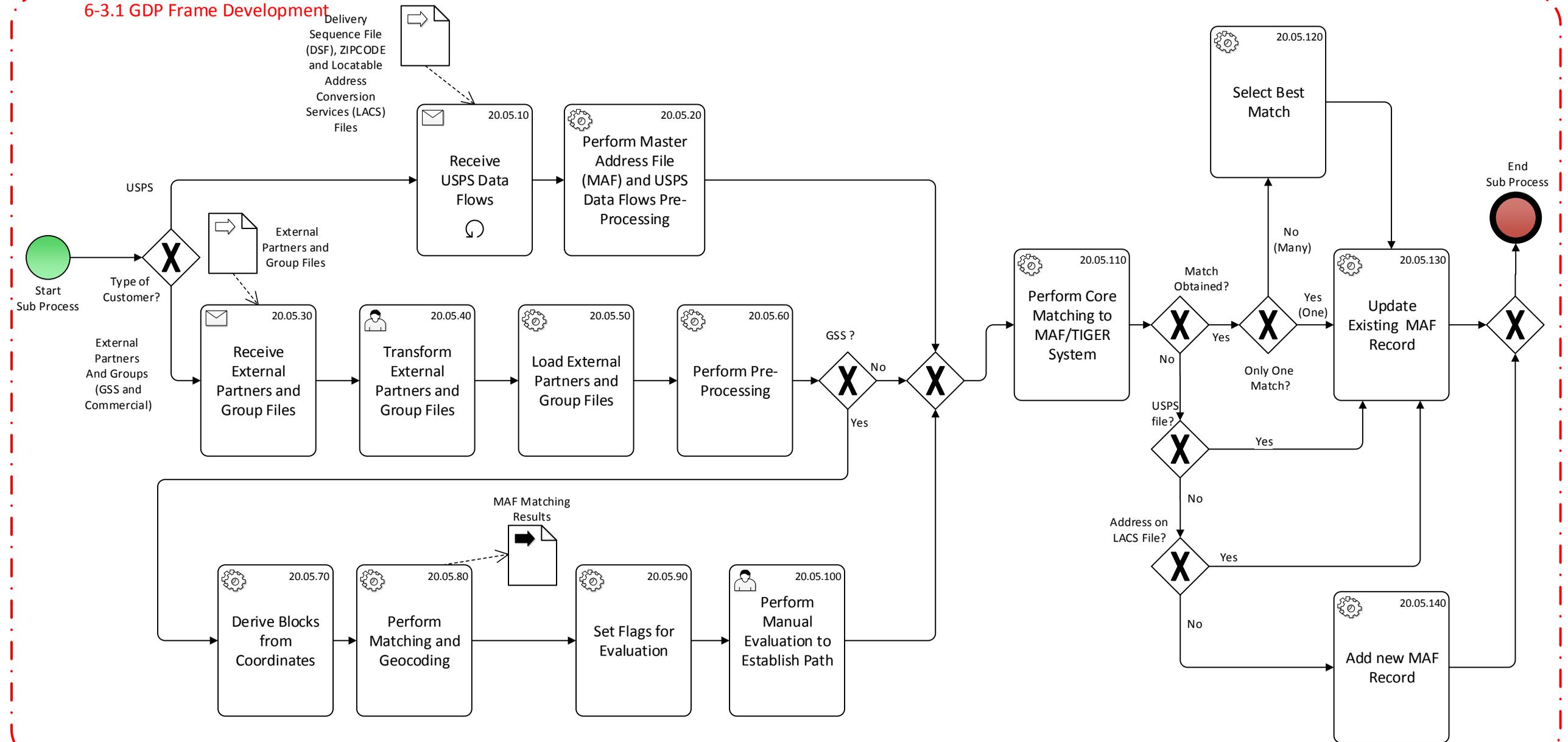
Purpose: To show the activities associated with responding to participant inquiries and handling rapid response issues



20.05 Provide Frame Development Support

Purpose: Support the receipt and processing of various address records from sources such as the USPS, state and local governments, and third-party data sources. These data help ensure accurate address coverage within the 2020 Census Frame.

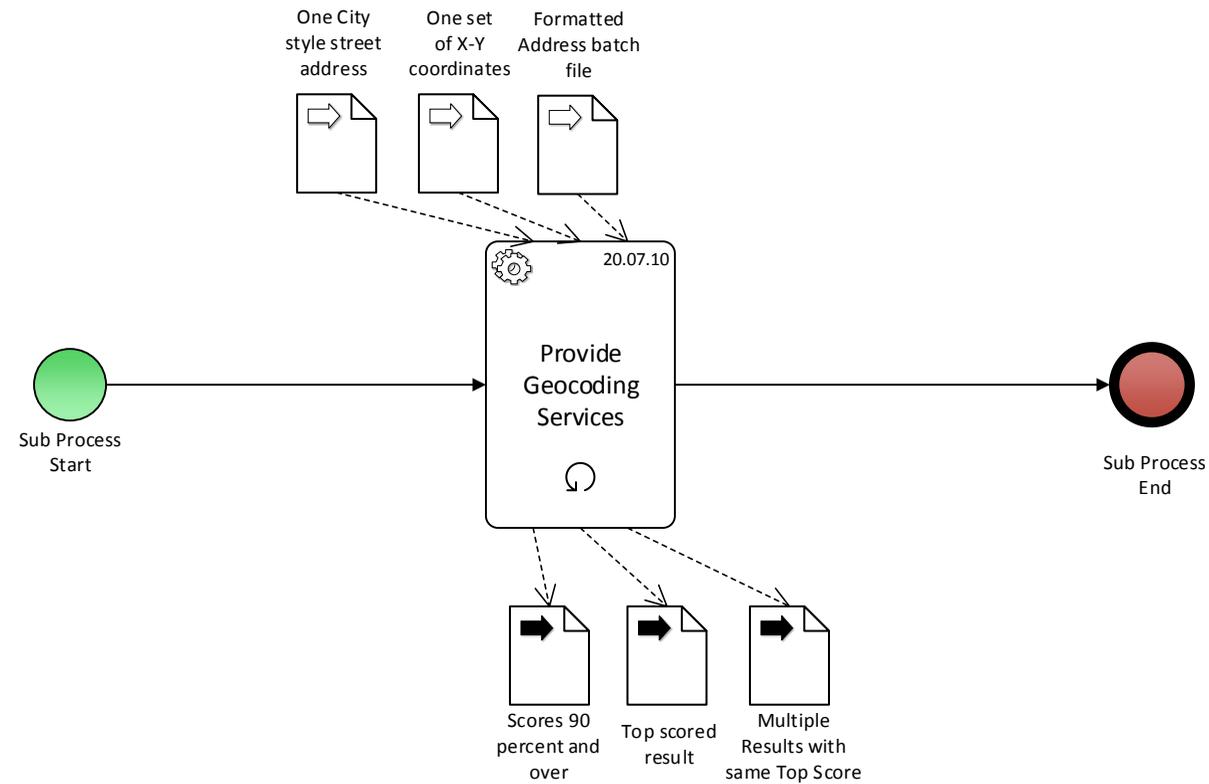
6-3.1 GDP Frame Development



20.07 Provide Geocoding Support

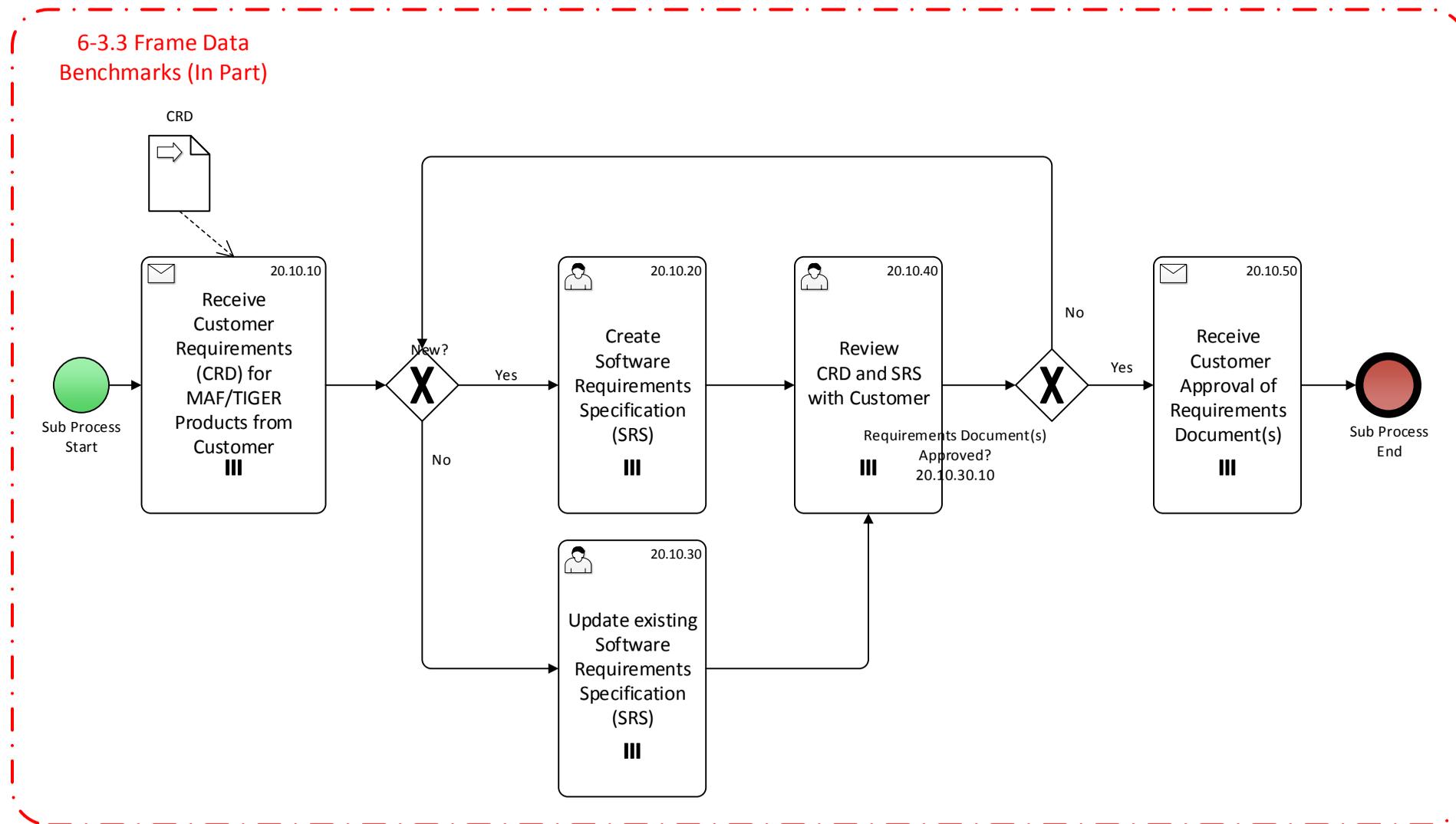
Purpose: To provide a mechanism for geocoding street addresses and providing the corresponding geographic codes

6-3.2 Geocoding



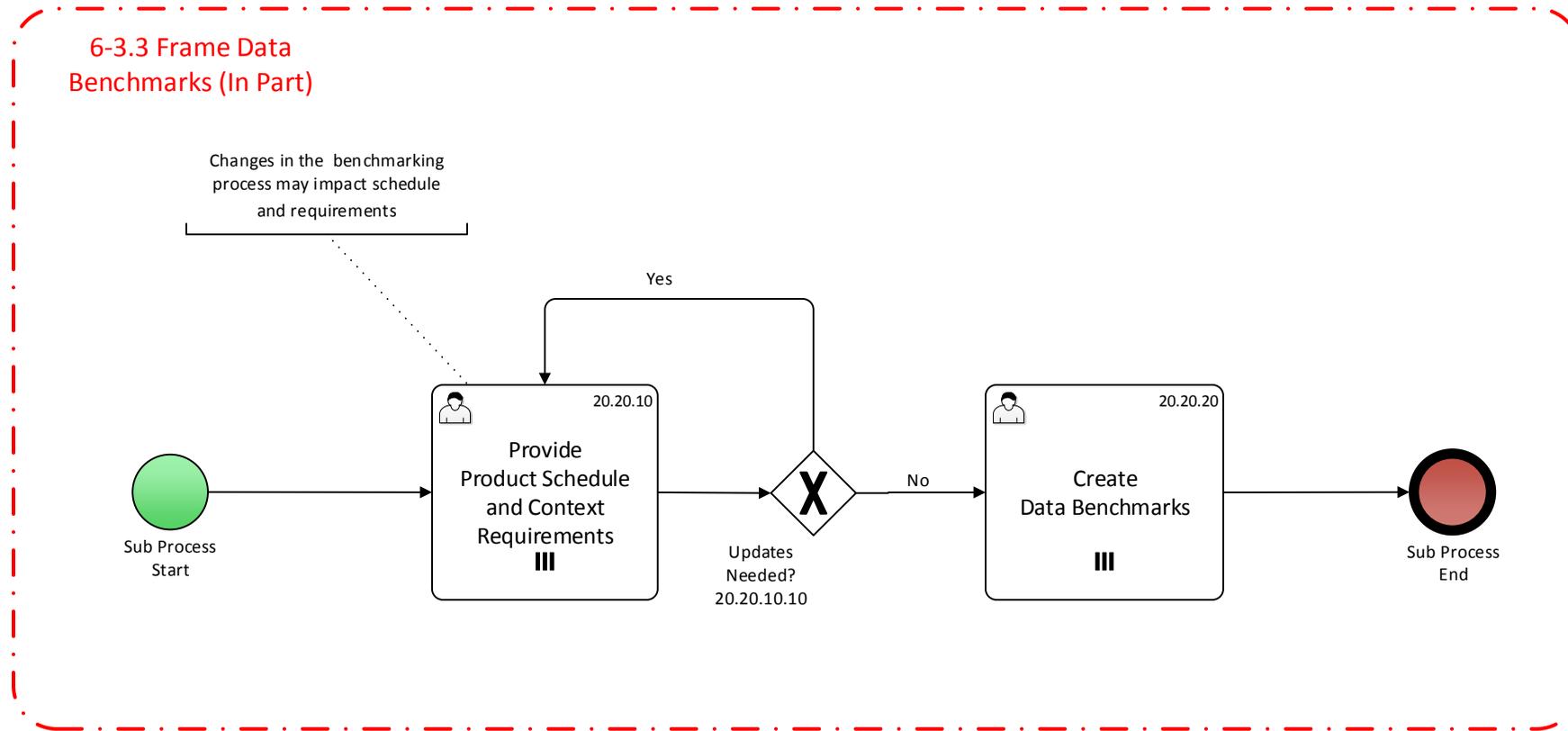
20.10 Receive MAF/TIGER Product Requirements

Purpose: To show the activities associated with receiving MAF/TIGER product requirements from customers.



20.20 Create MAF TIGER Data Benchmarks

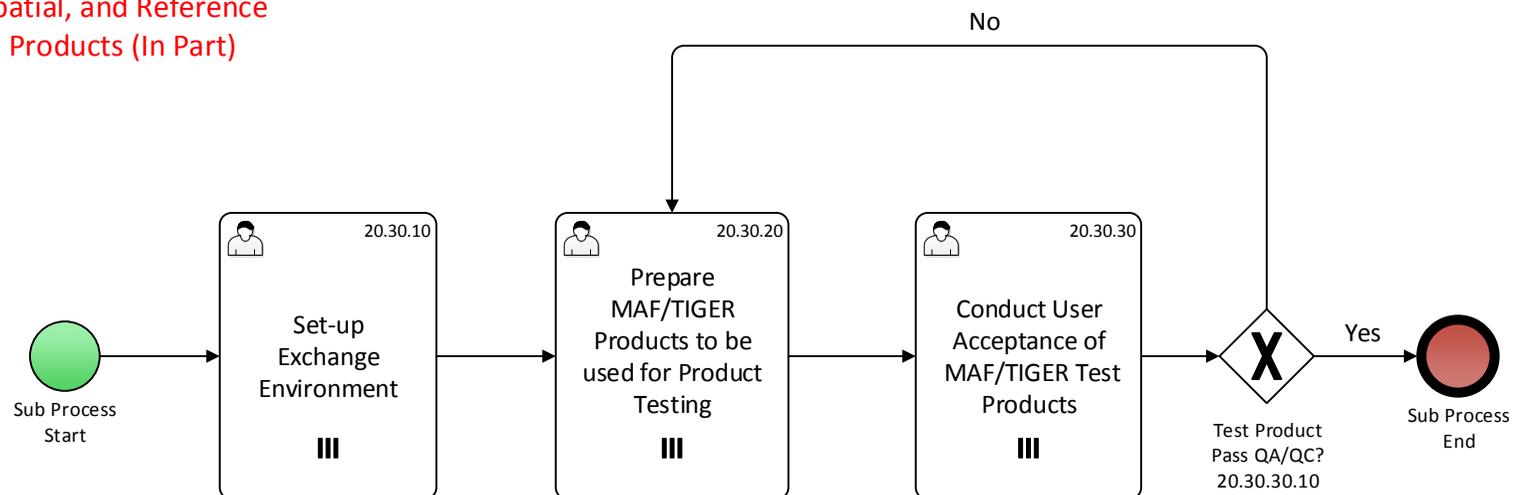
Purpose: To show the activities associated with creating MAF/TIGER data benchmarks



20.30 Produce Address, Spatial, Reference and Map Files

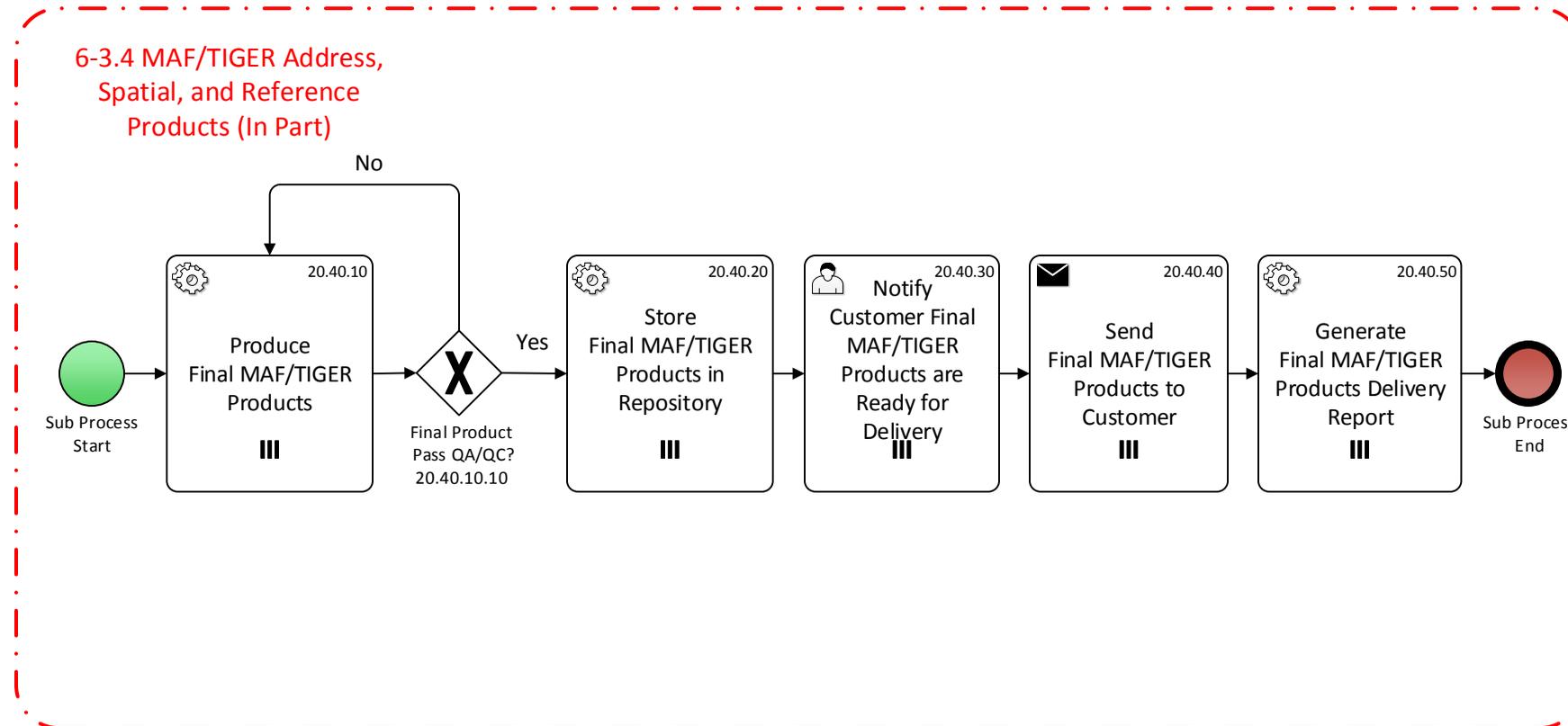
Purpose: To show the activities associated with address, spatial, reference and map files production

6-3.4 MAF/TIGER Address, Spatial, and Reference Products (In Part)



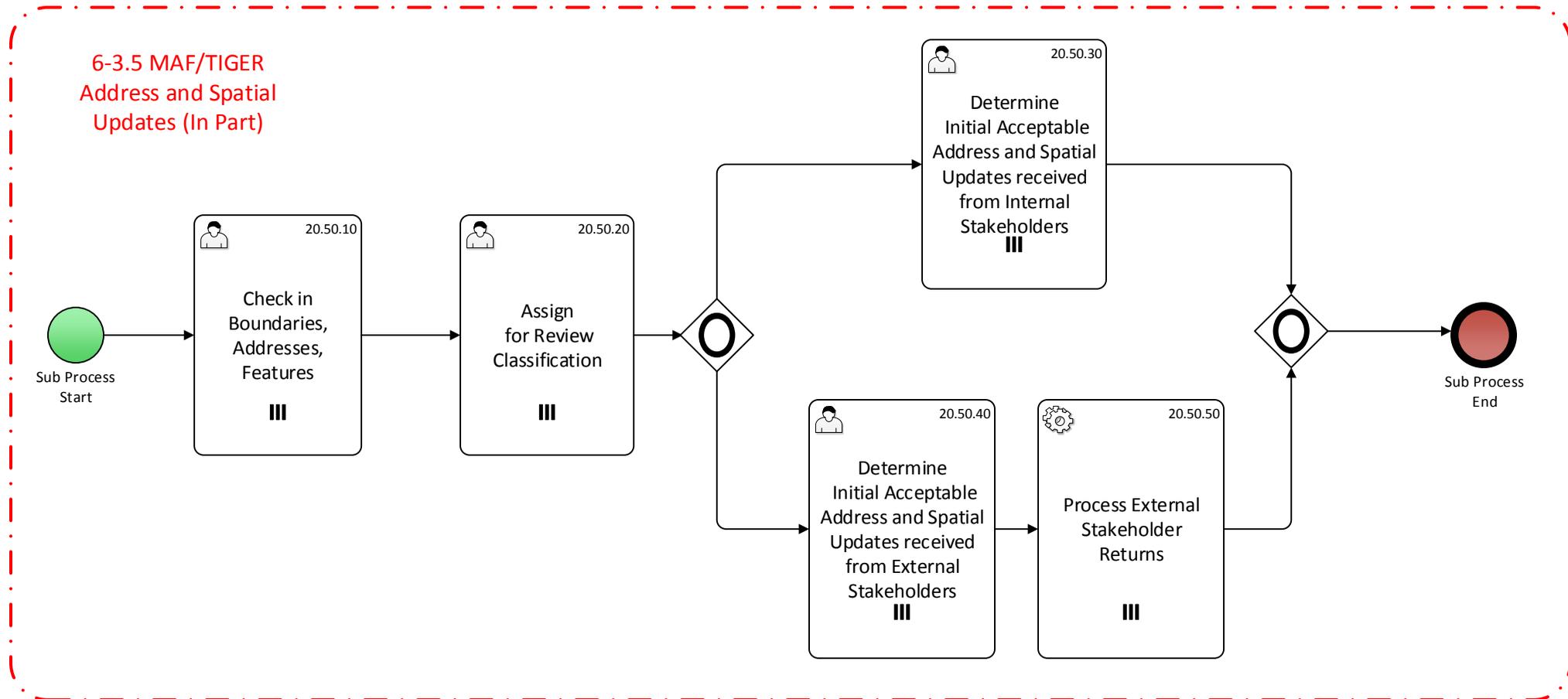
20.40 Deliver Final MAF/TIGER Products

Purpose: To deliver the Final MAF/TIGER products to customers



20.50 Collect and Process Address and Spatial Data

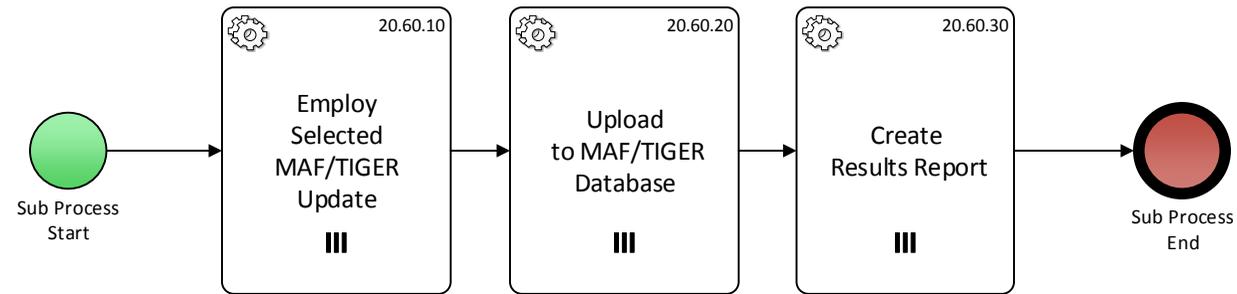
Purpose: To collect and process address and spatial data from internal and external stakeholders



20.60 Update MAF/TIGER

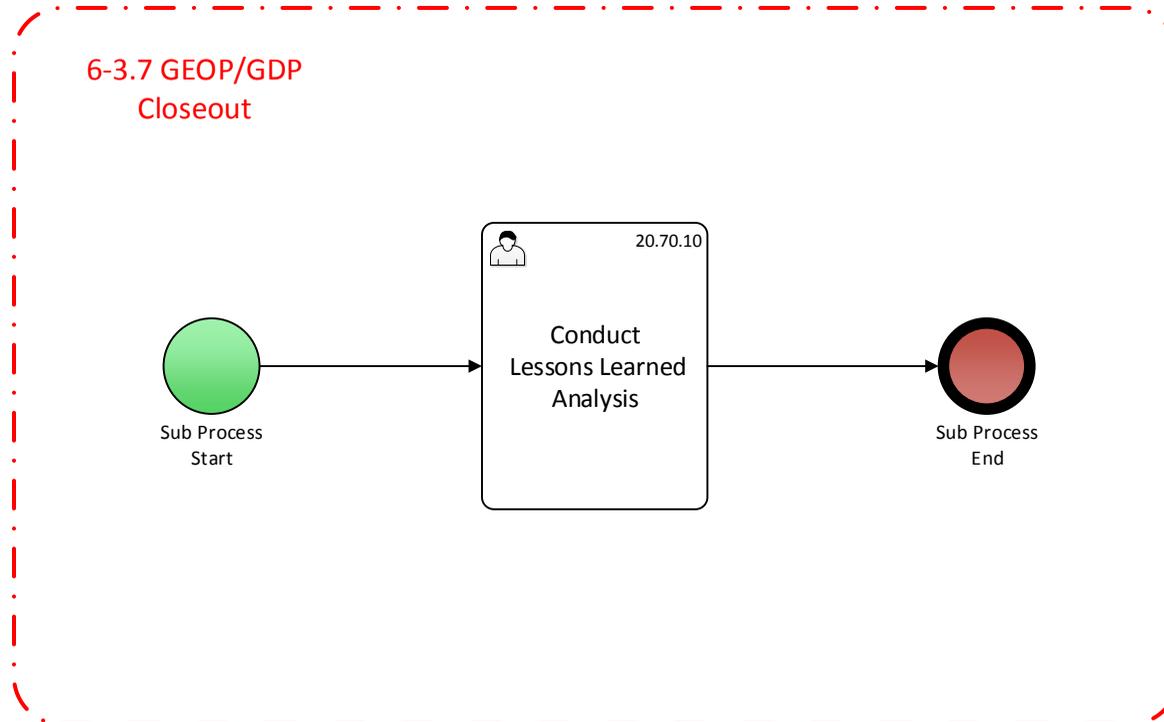
Purpose: To show the activities associated with updating the MAF/TIGER with address and spatial updates

6-3.5 MAF/TIGER
Address and Spatial
Updates (In Part)



20.70 Closeout GEOP/GDP Component Activities

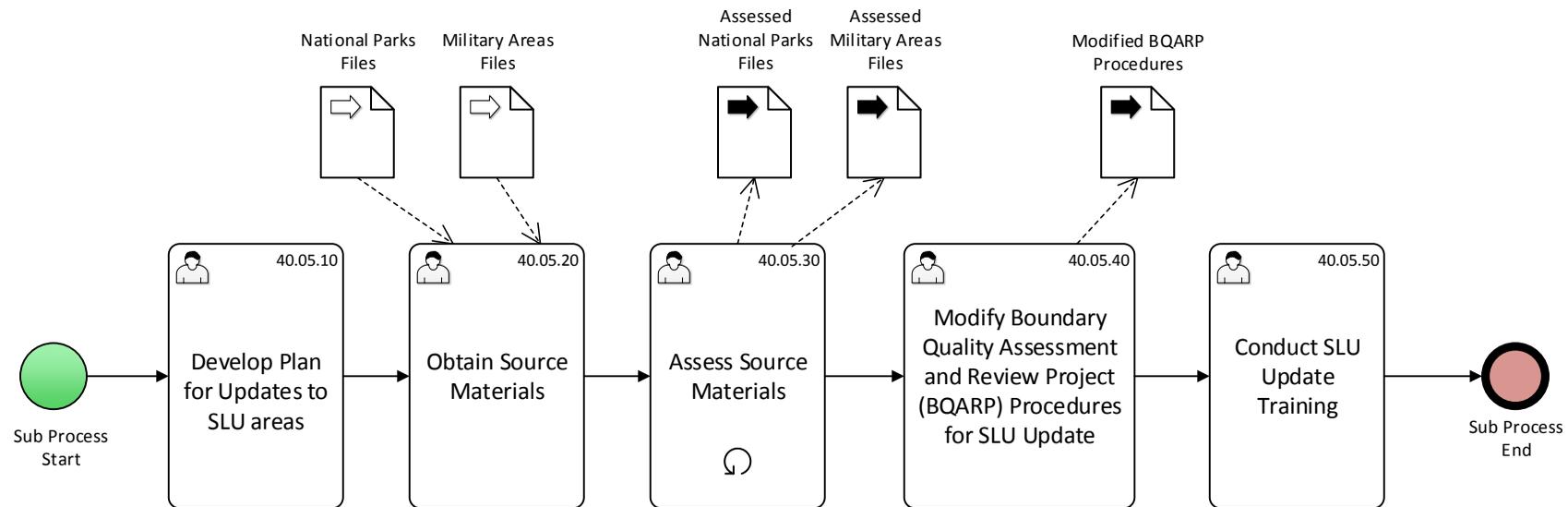
Purpose: To show the activities associated with closing the 2020 Geographic Data Processing



40.05 Prepare to Perform SLU Updates

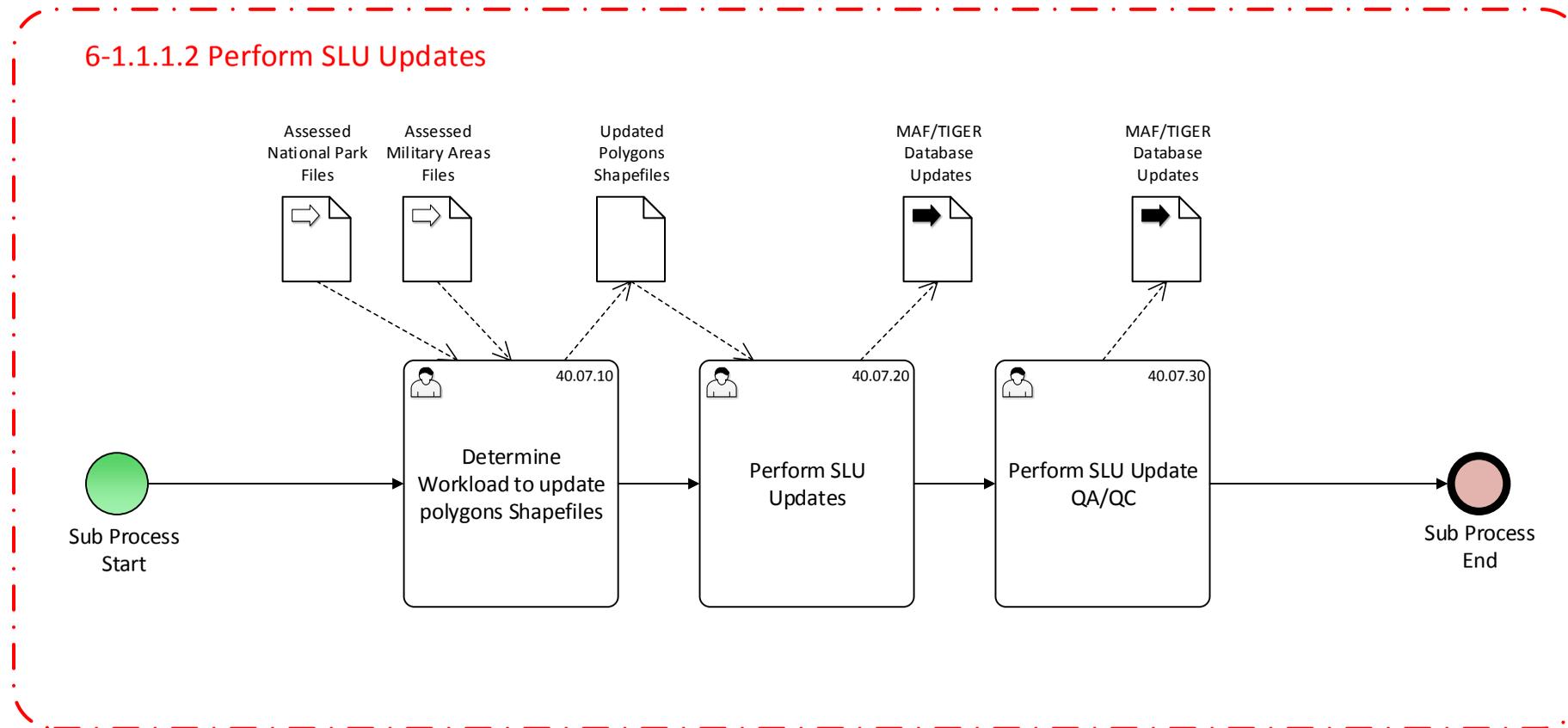
Purpose: To develop plan for SLU updates, obtain/assess source materials, write SLU update procedures and conduct training.

6-1.1.1.1 Prepare to Perform SLU Updates



40.07 Perform SLU Updates

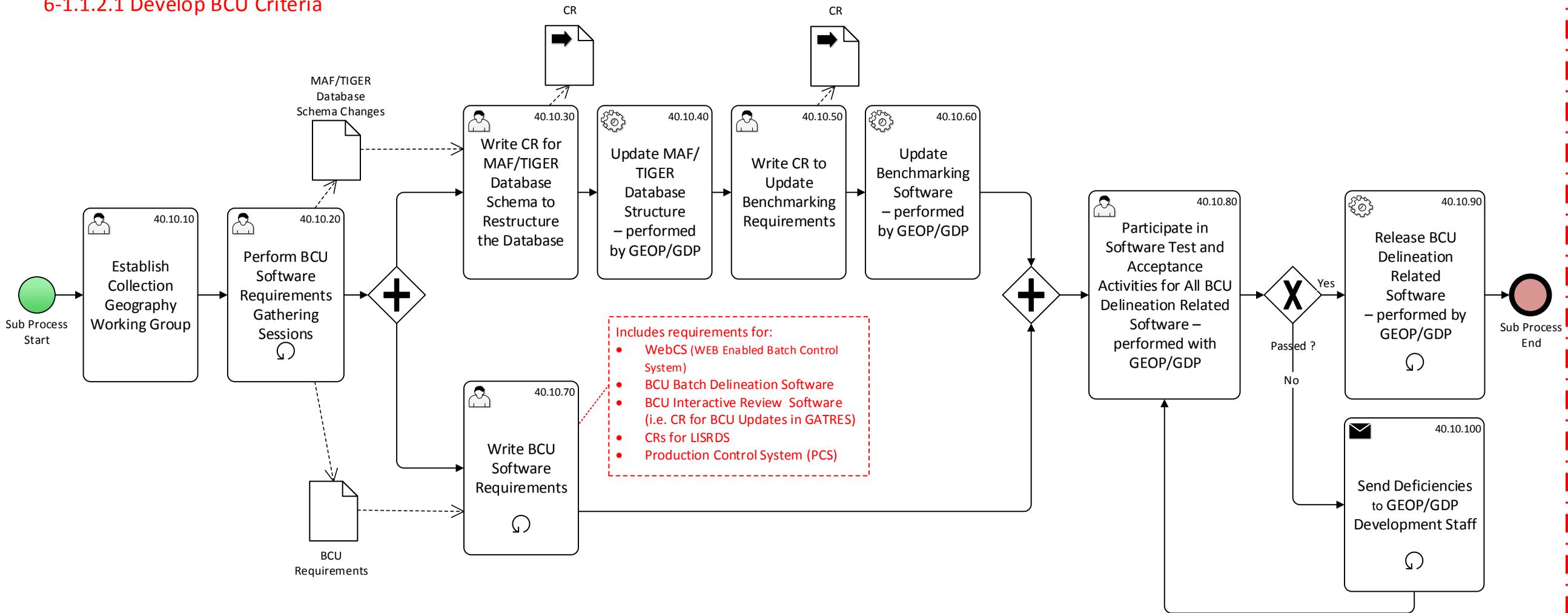
Purpose: To determine workload and perform SLU updates



40.10 Develop BCU Criteria

Purpose: To modify MAF/TIGER Database structure, identify BCU customer requirements and write software requirements to support BCU development and creation.

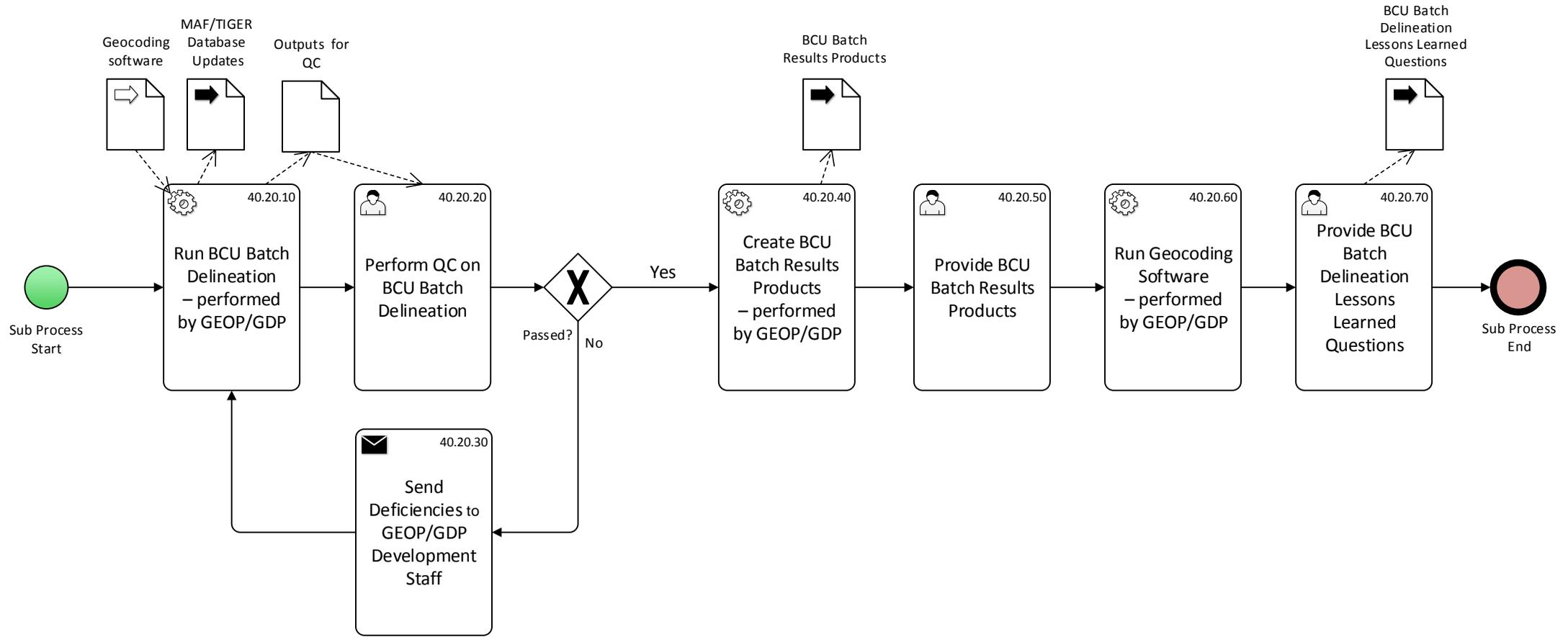
6-1.1.2.1 Develop BCU Criteria



40.20 Perform BCU Batch Delineation

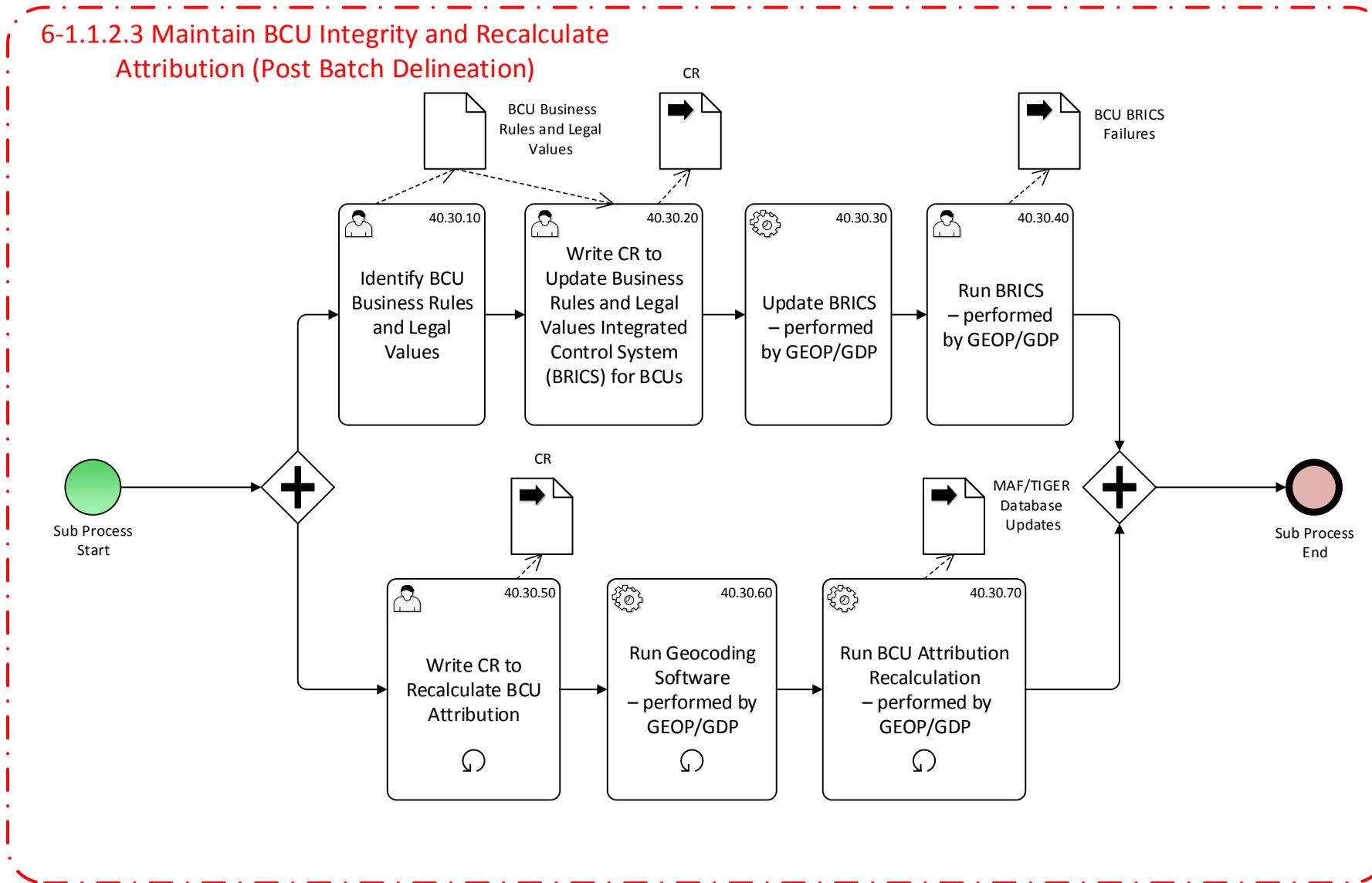
Purpose: To delineate BCUs in the MAF/TIGER Database via a batch delineation process.

6-1.1.2.2 Perform BCU Batch Delineation



40.30 Maintain BCU Integrity and Recalculate Attribution (PDB)

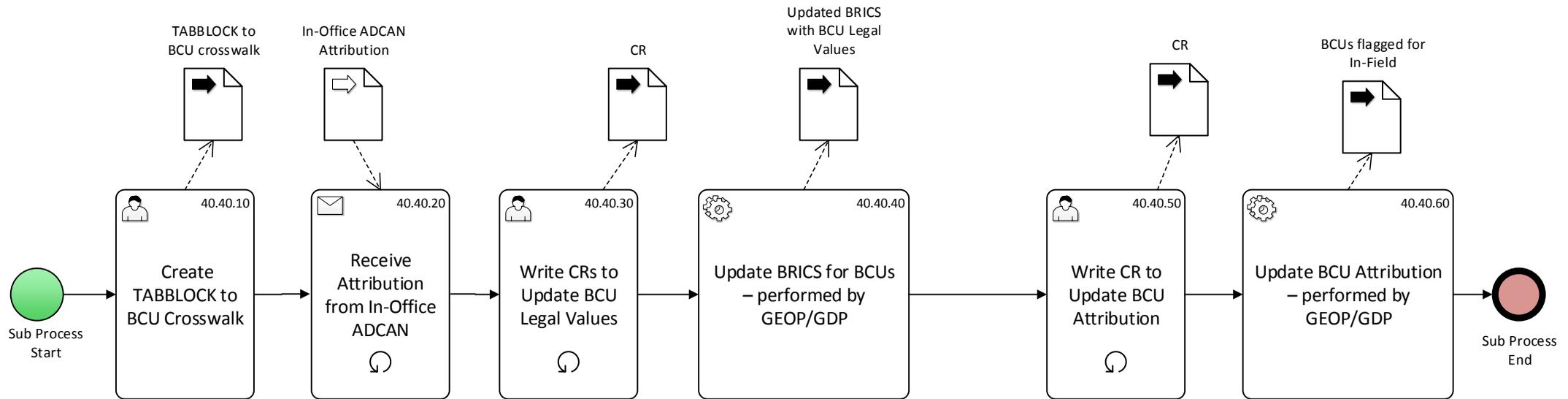
Purpose: To ensure the BCU geography remains intact with regard to the original specifications and recalculate BCU attribution as the need is identified.



40.40 Update BCU Attribution

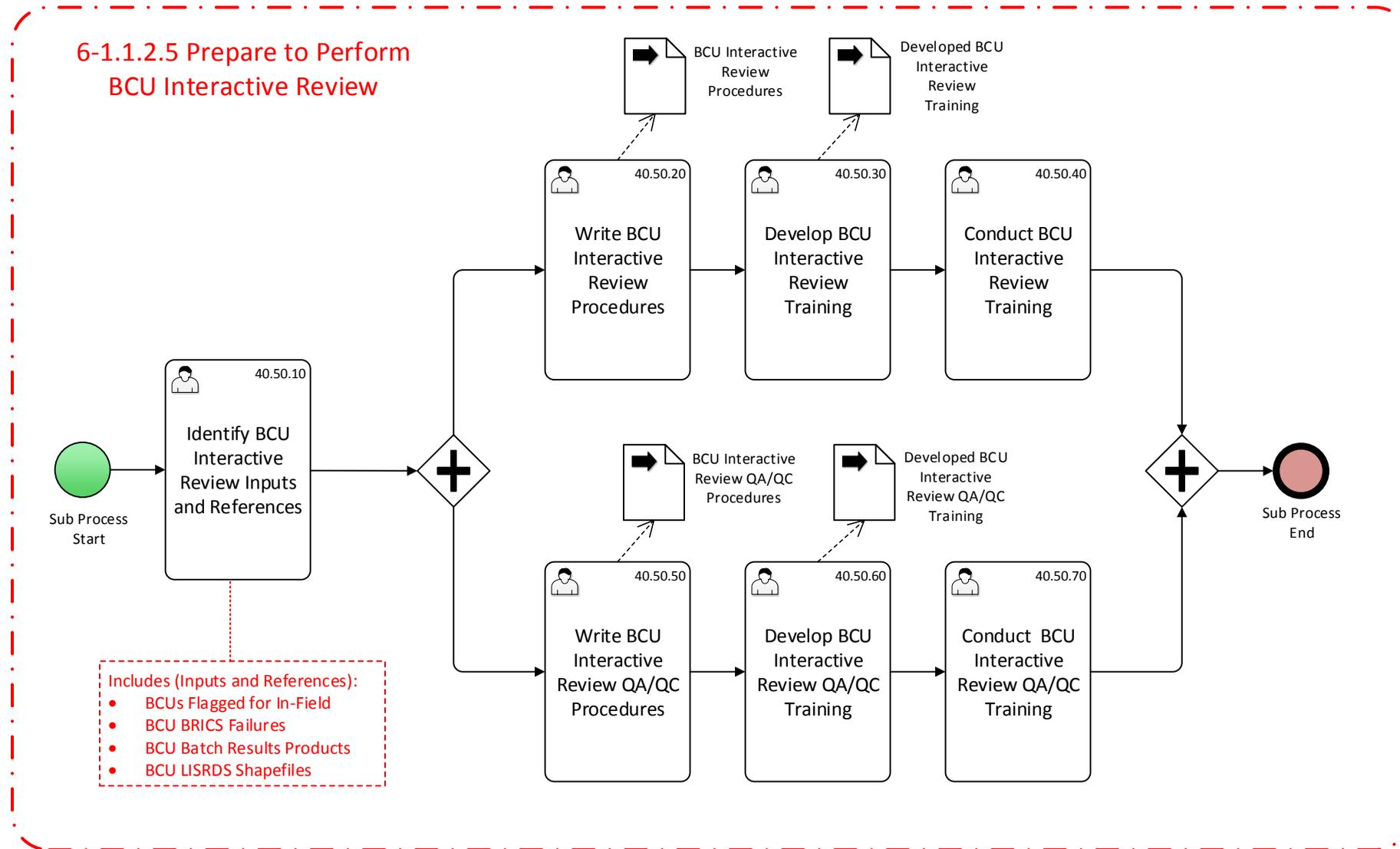
Purpose: To update BCU Legal Values and Attributes based on in-office ADCAN attribution.

6-1.1.2.4 Update BCU Attribution



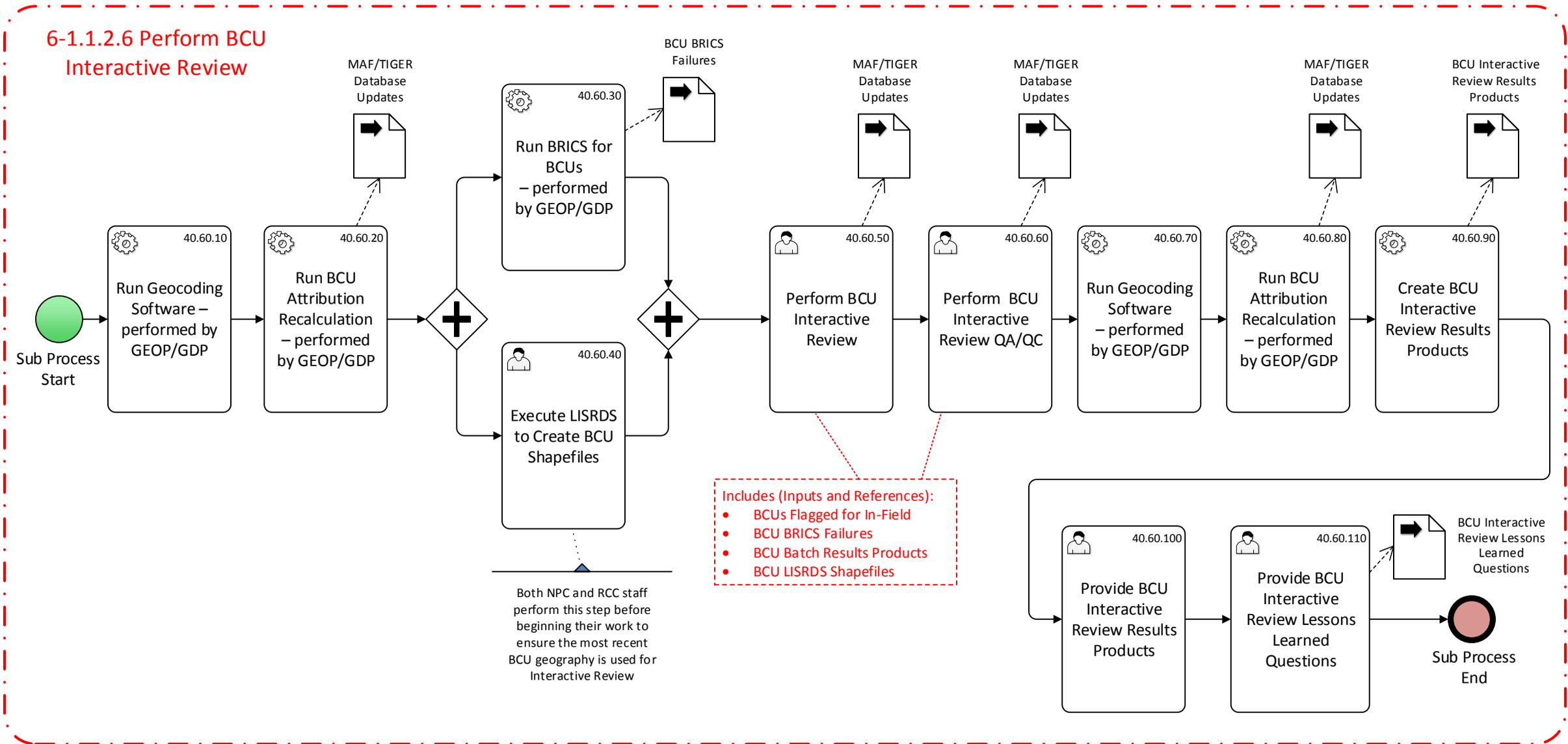
40.50 Prepare to Perform BCU Interactive Review

Purpose: To identify BCU Interactive Review inputs, write procedures and conduct training.



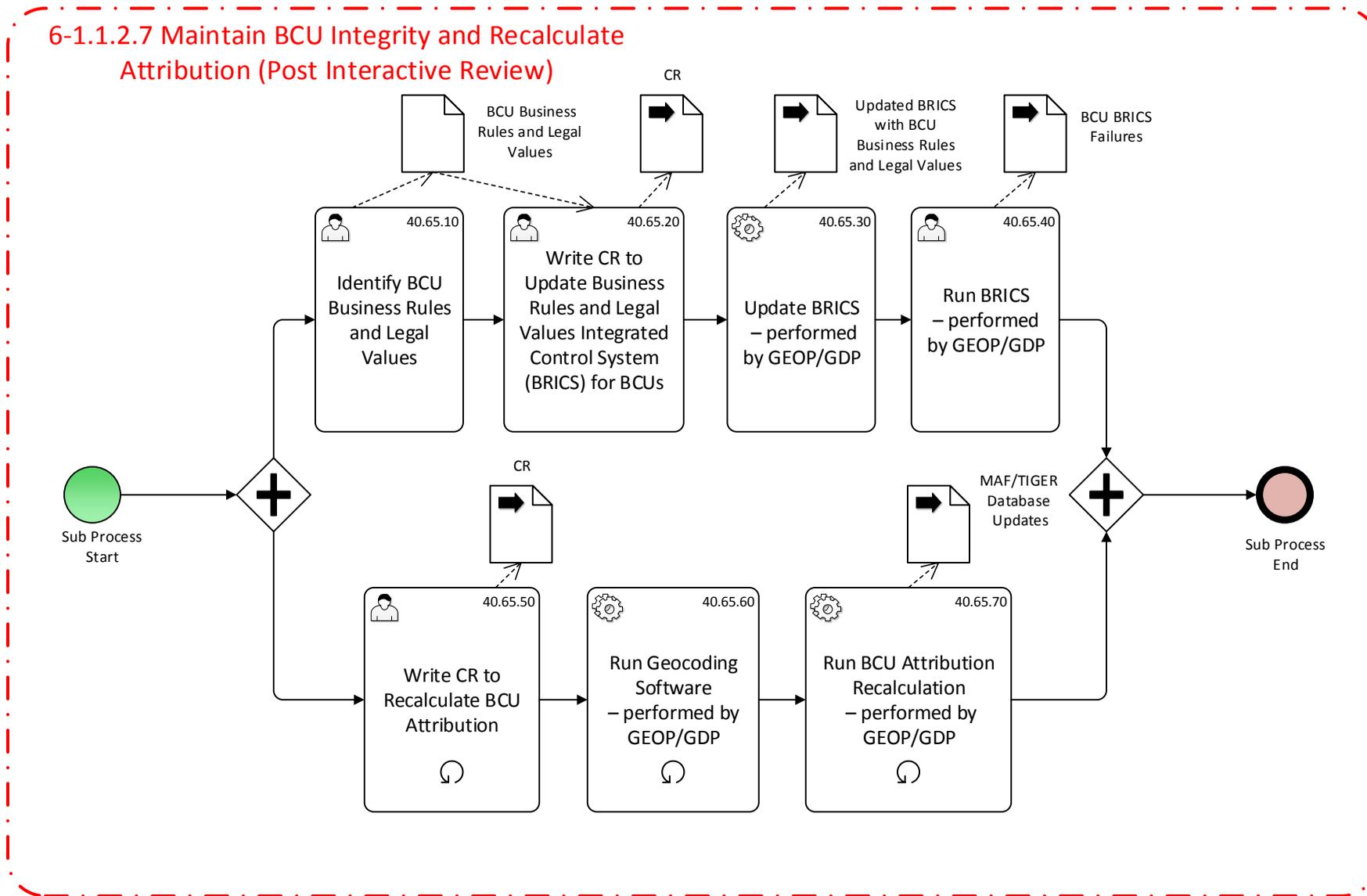
40.60 Perform BCU Interactive Review

Purpose: To resolve issues with BCU boundaries following BCU Batch Delineation.



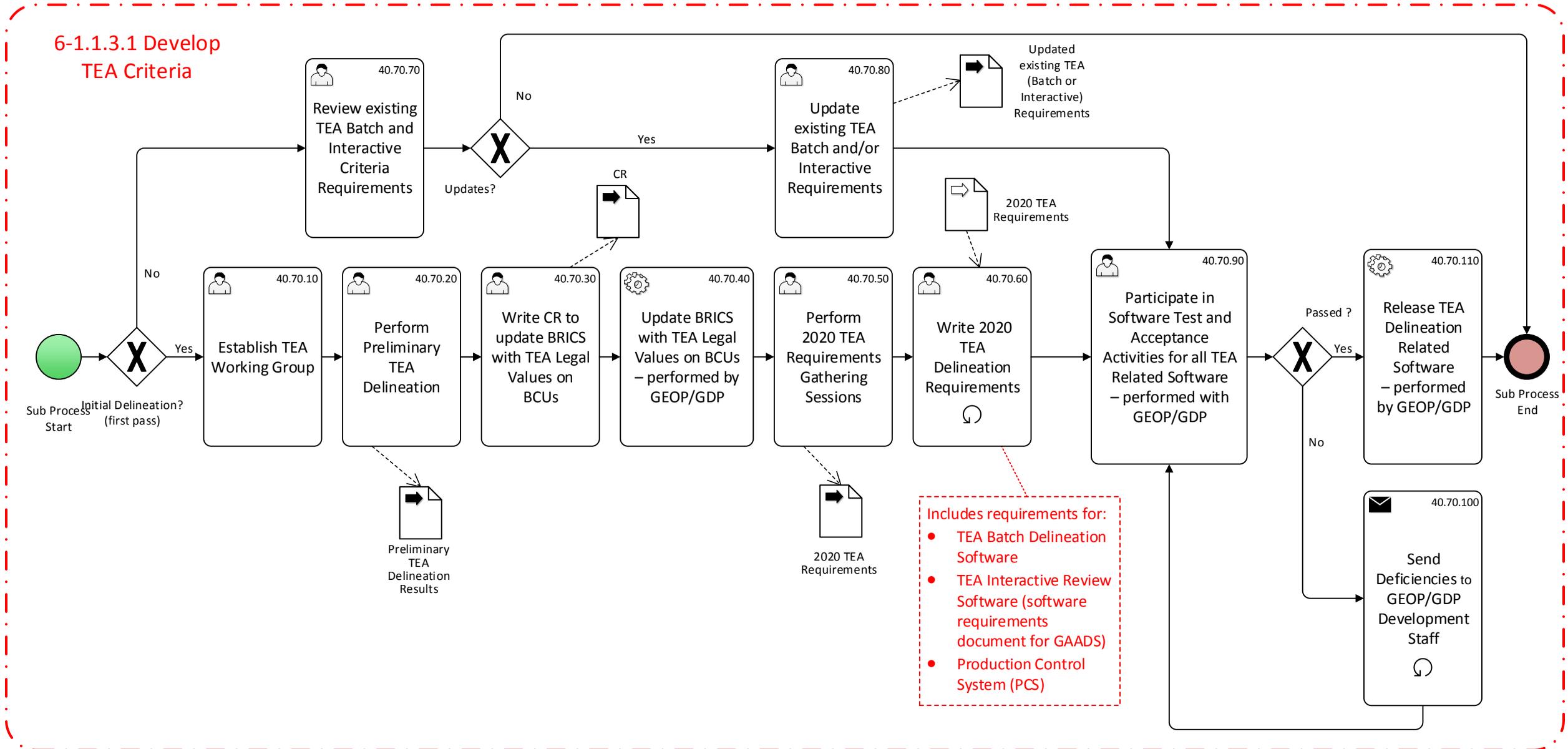
40.65 Maintain BCU Integrity and Recalculate Attribution (PIR)

Purpose: To ensure the BCU geography remains intact with regard to the original specifications and recalculate BCU attribution as the need is identified.



40.70 Develop TEA Criteria

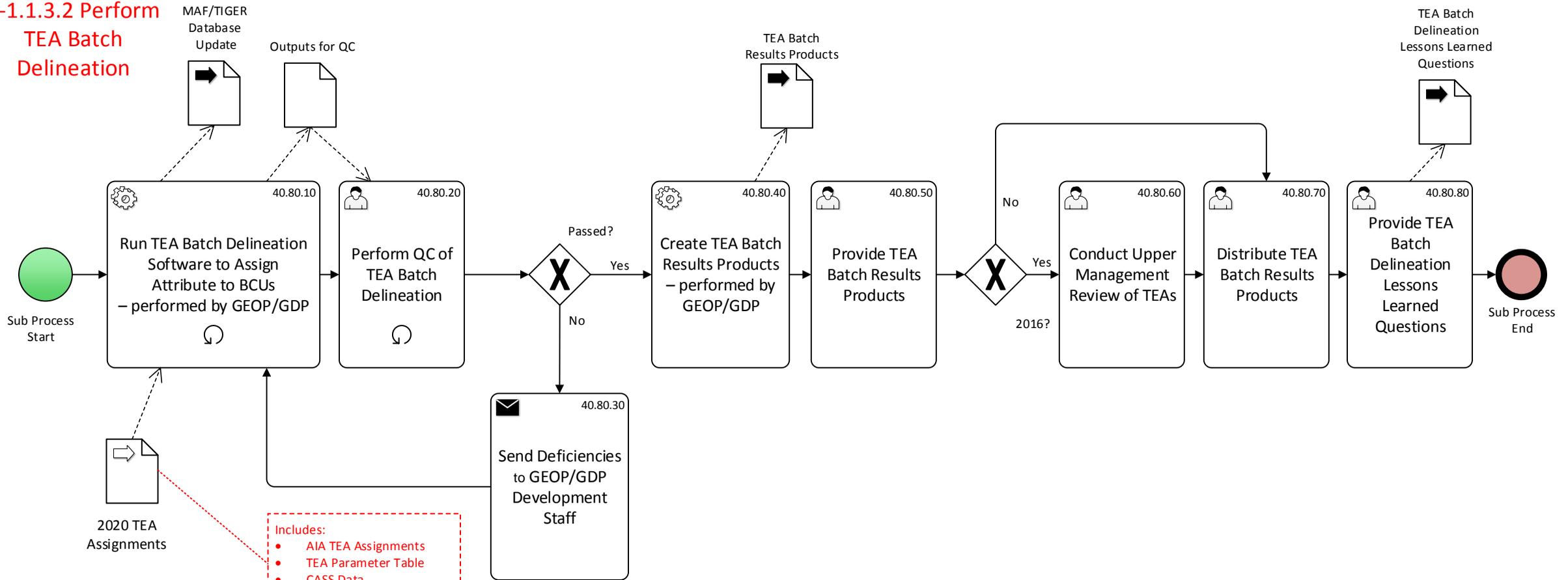
Purpose: To modify the MAF/TIGER Database structure, identify 2020 TEA requirements and write software requirements to support TEA attribution within BCUs.



40.80 Perform TEA Batch Delineation

Purpose: To populate the BCU in the MAF/TIGER Database database with the TEA attribute via a Batch Delineation process.

6-1.1.3.2 Perform TEA Batch Delineation



2017 TEA Batch Delineation performed AFTER completion of Update BCU Attribution (40.40)

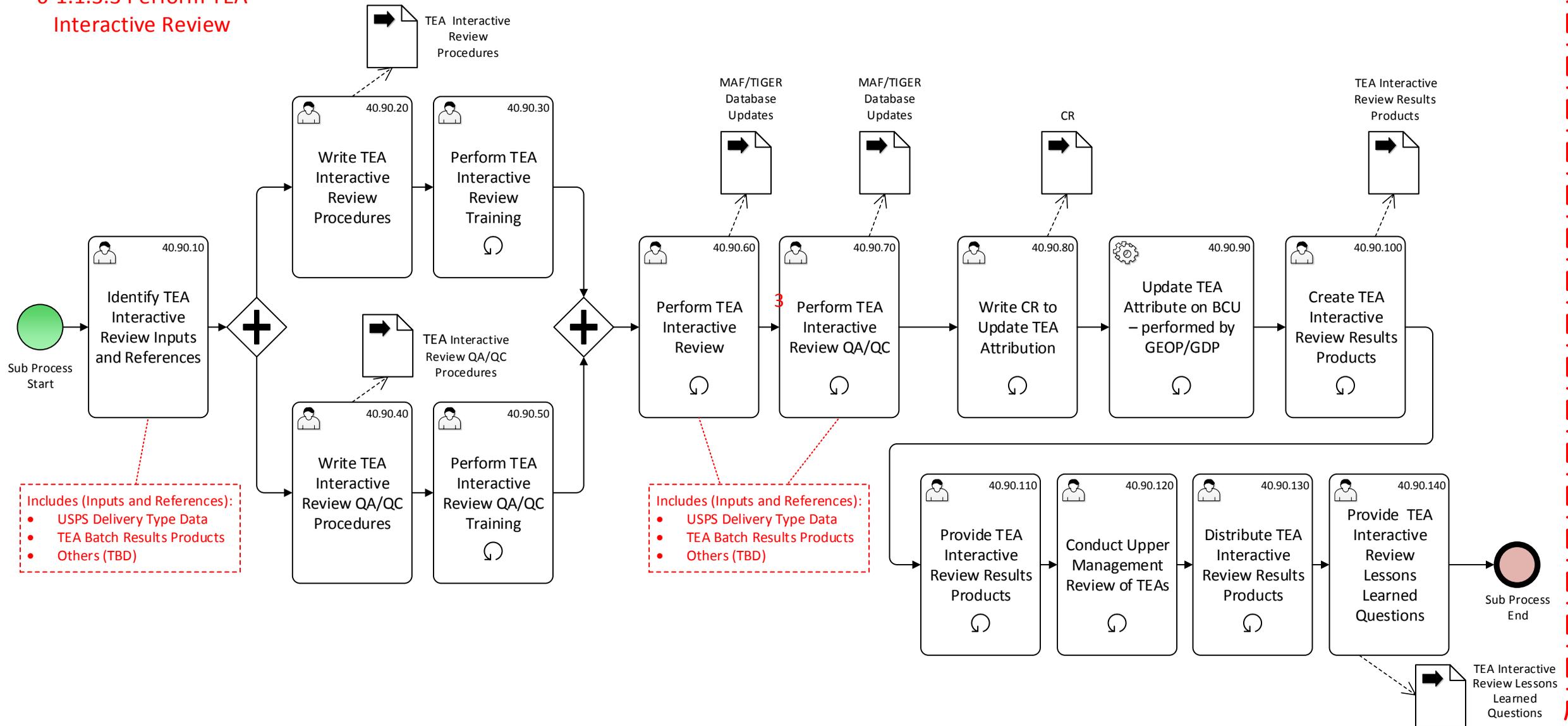
2018 TEA Batch Delineation performed AFTER completion of Perform BCU Interactive Review (40.60)

- Includes:
- AIA TEA Assignments
 - TEA Parameter Table
 - CASS Data
 - Filtered HU Data (Universe of Addresses)

40.90 Perform TEA Interactive Review

Purpose: To interactively review and modify TEA attribution; occurs in 2017 and 2018.

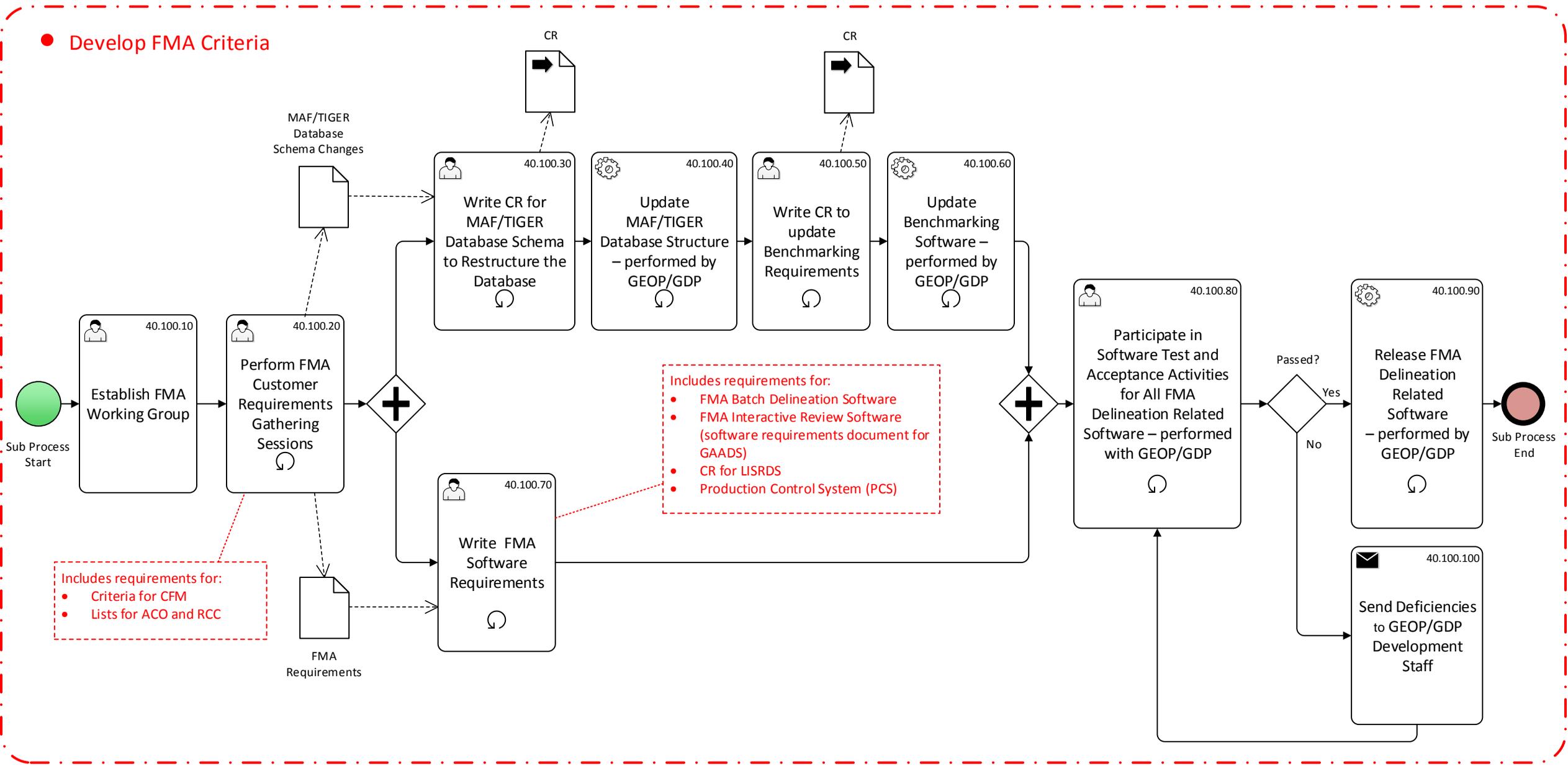
6-1.1.3.3 Perform TEA Interactive Review



40.100 Develop FMA Criteria

Purpose: To modify MAF/TIGER Database structure, identify FMA customer requirements and write software requirements to support FMA development.
 (Regional Census Center (RCC), Area Census Office (ACO), and Census Field Manager (CFM))

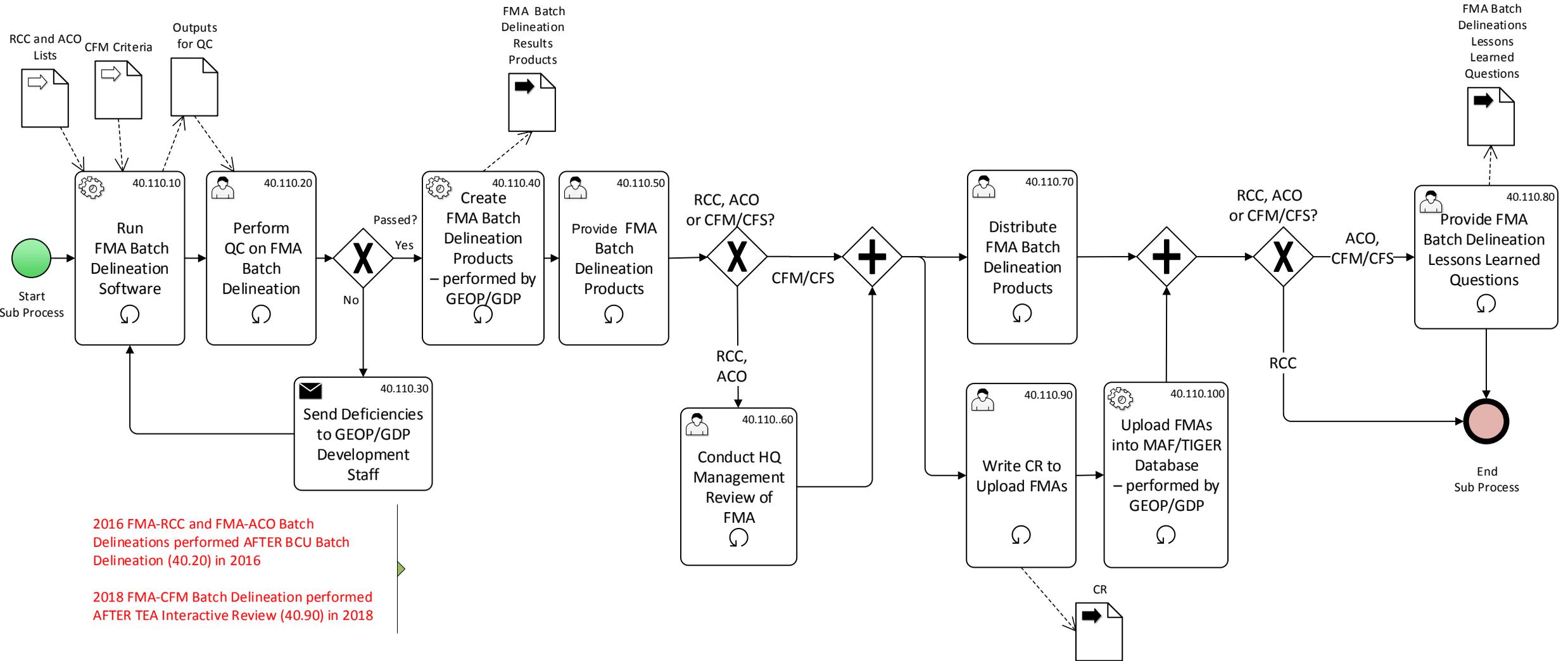
Develop FMA Criteria



40.110 Perform FMA Batch Delineation

Purpose: To delineate FMAs in the MAF/TIGER system (MAF/TIGER Database) via Batch Delineation (at the appropriate time, for the appropriate operation).

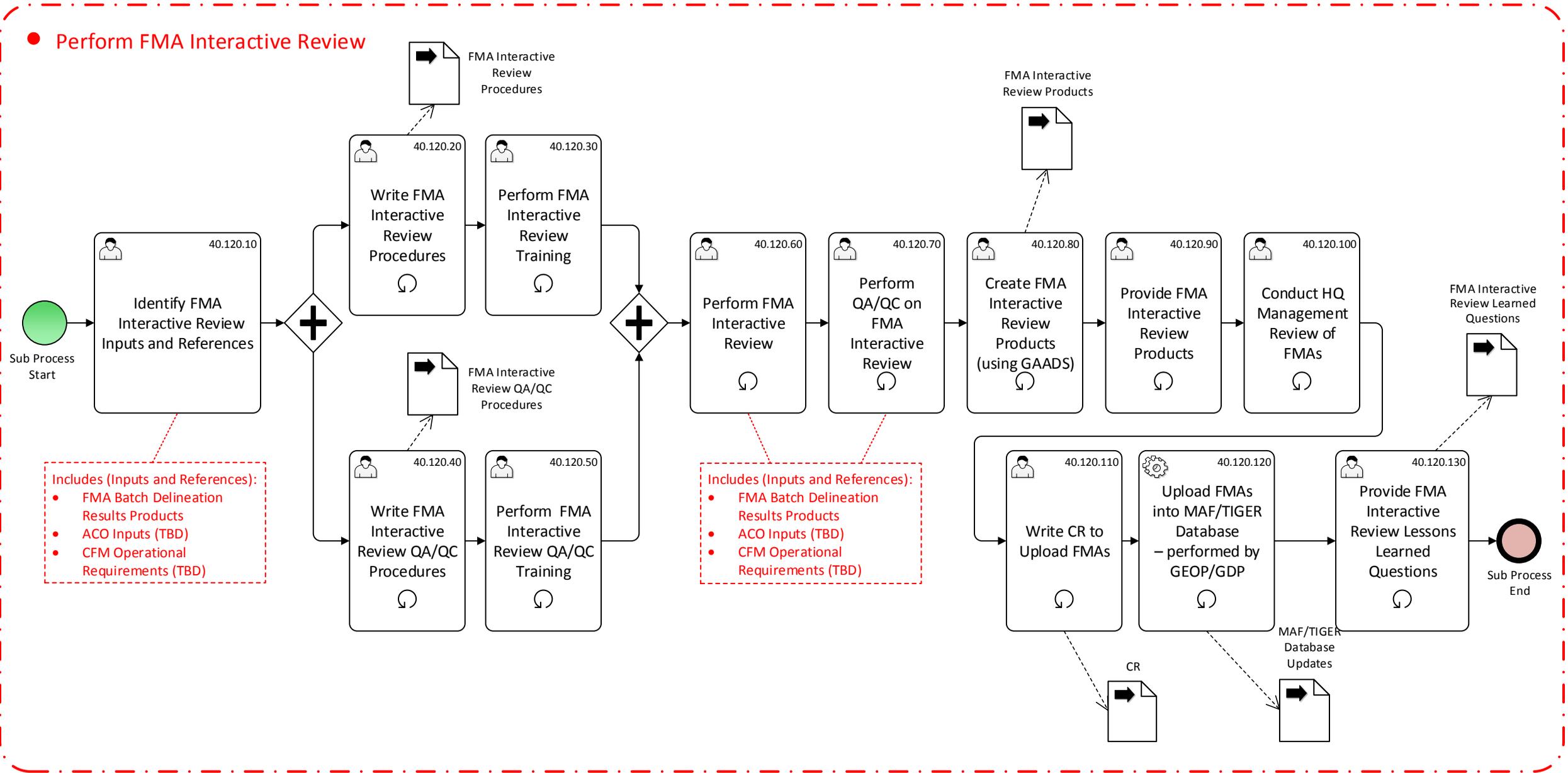
Perform FMA Batch Delineation



40.120 Perform FMA Interactive Review

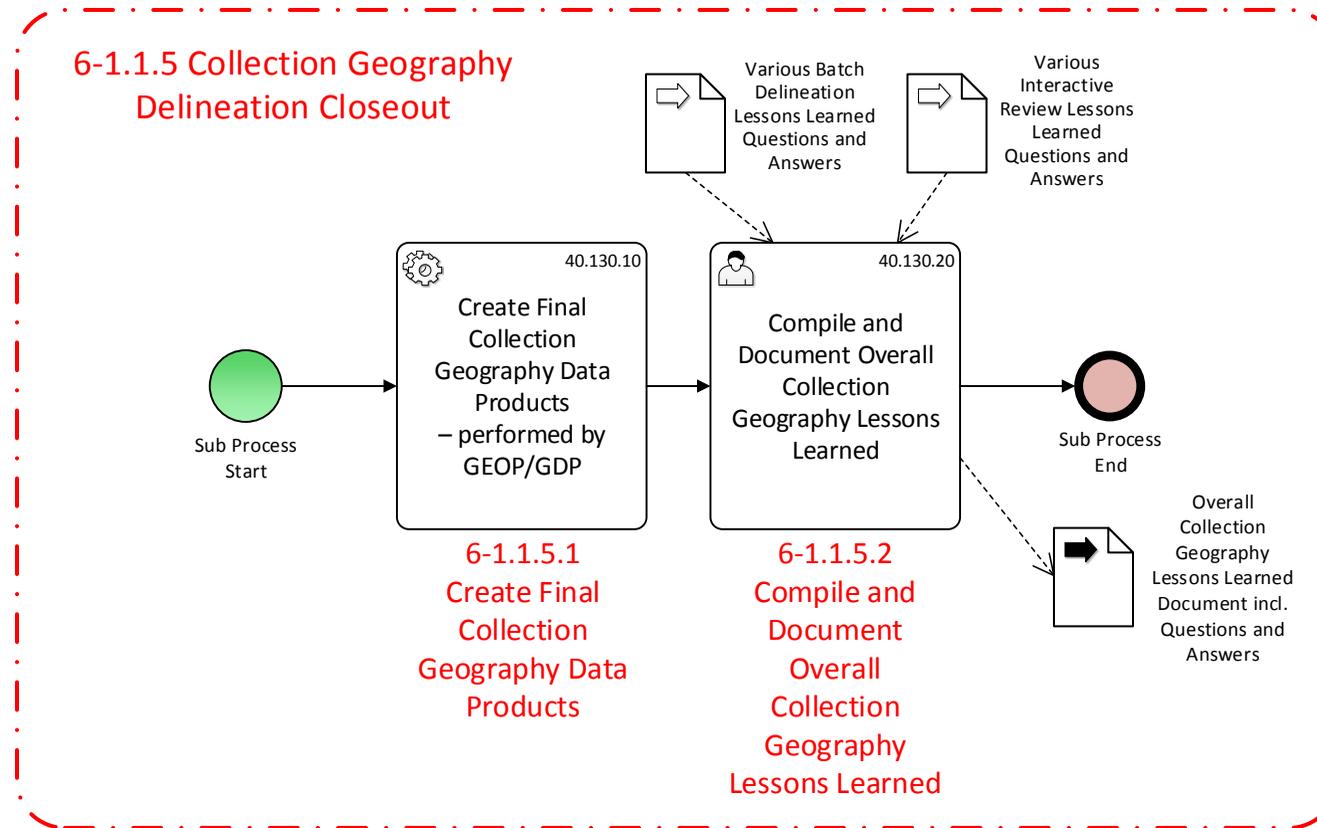
Purpose: To review and modify the various FMAs following their respective Batch Delineation. *(applies only to ACO and CFM)*

● Perform FMA Interactive Review



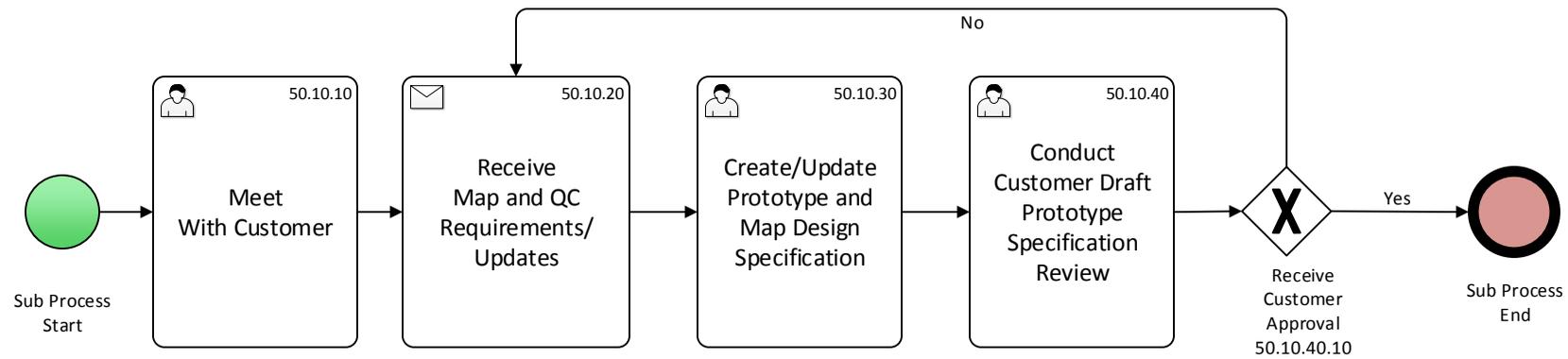
40.130 Closeout Collection Geography Delineation

Purpose: To create final Collection Geography data products, adequately document Lessons Learned and close-out 2020 Collection Geography activities.



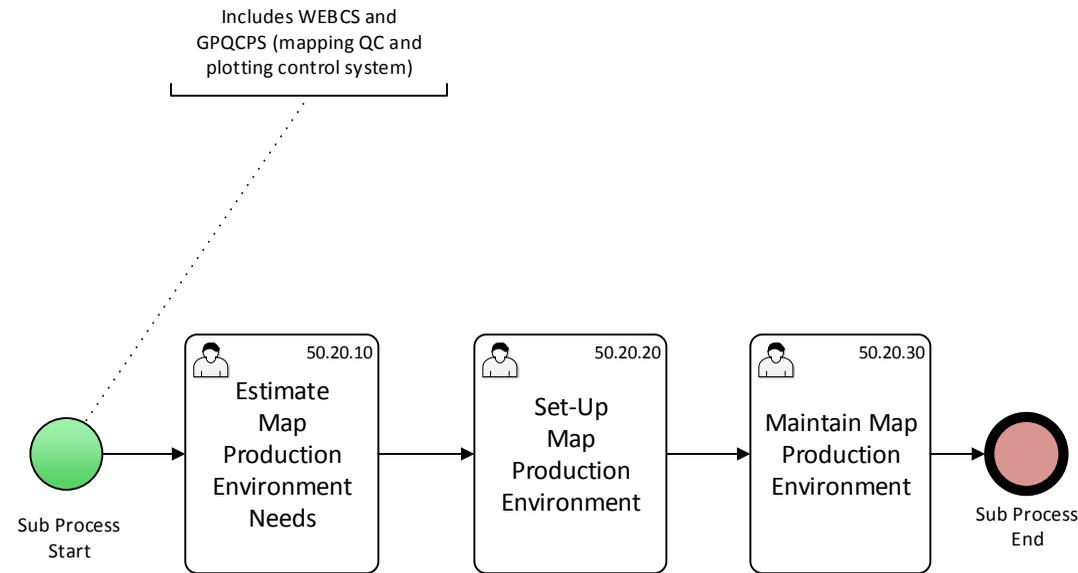
50.10 Receive Map Production Requirements

Purpose: To show the activity level associated with receiving requirements



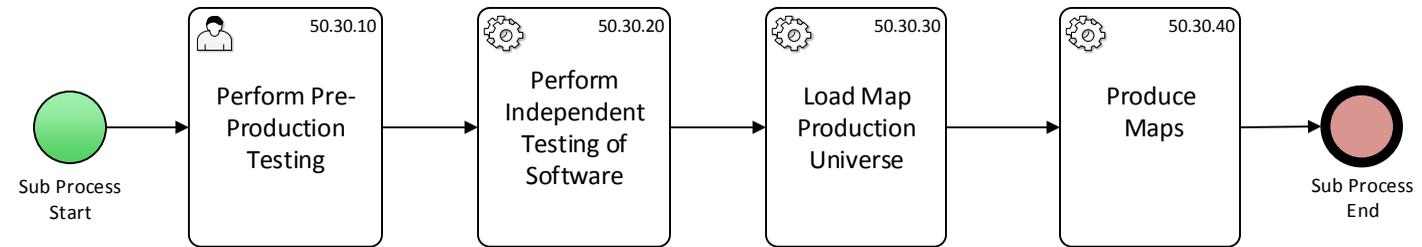
50.20 Create Map Production Environment

Purpose: To show the activities associated with creating the map production and plotting environment



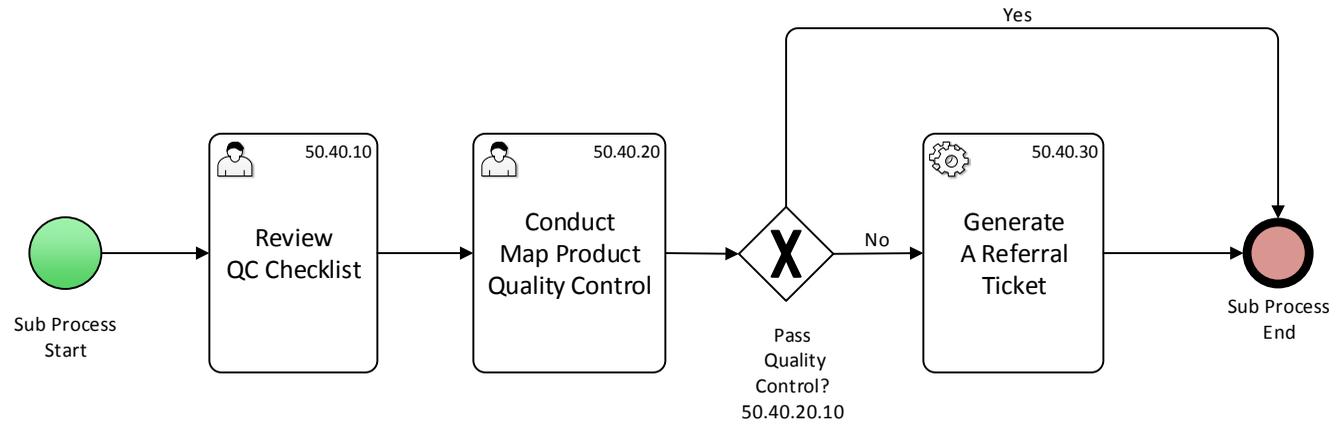
50.30 Create Map Product

Purpose: To show the activities associated with creating a map product based on requirements



50.40 Perform Map Quality Control

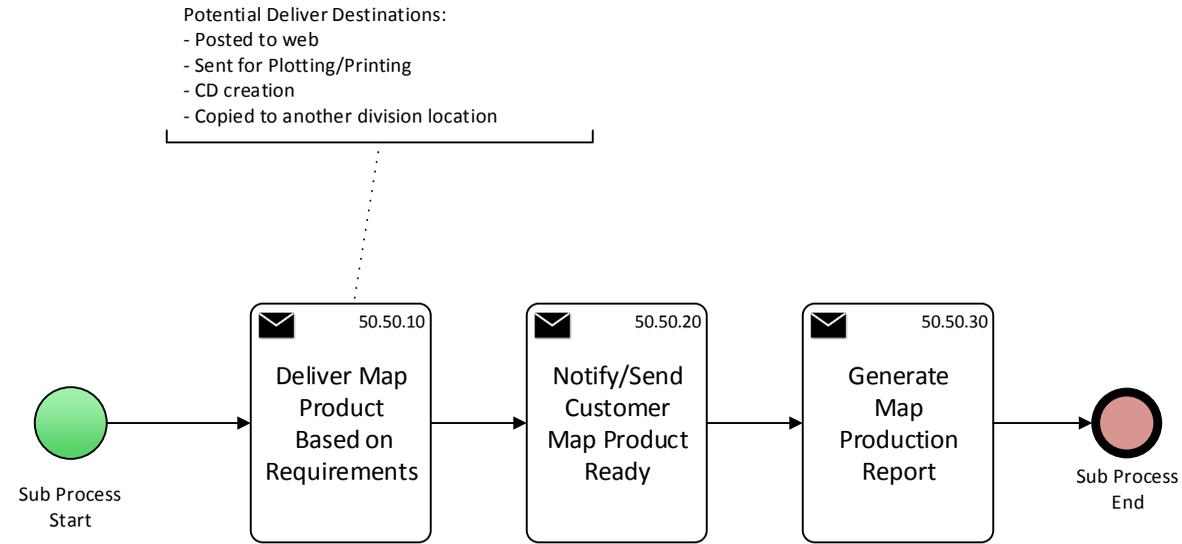
Purpose: To show the activities associated with quality control for produced maps





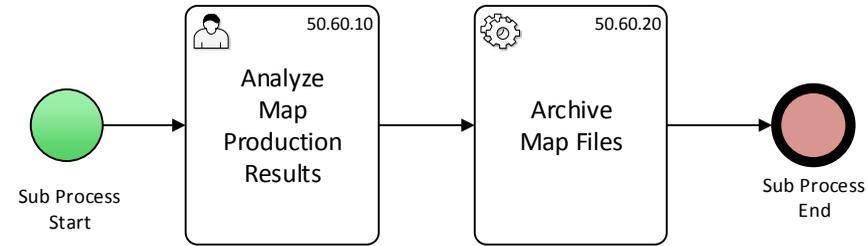
50.50 Deliver Final Map Product

Purpose: To show the activities associated delivering the final map product



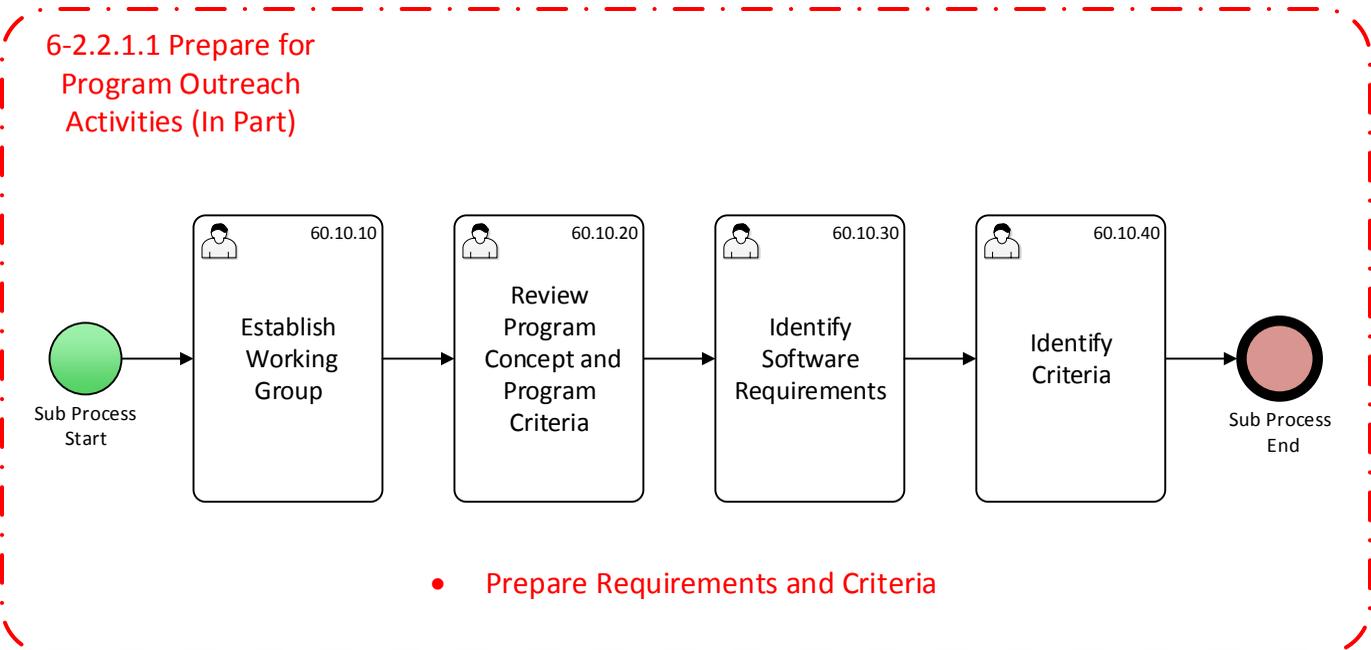
50.60 Close Map Production Activities

Purpose: To show the activities associated with closing map production



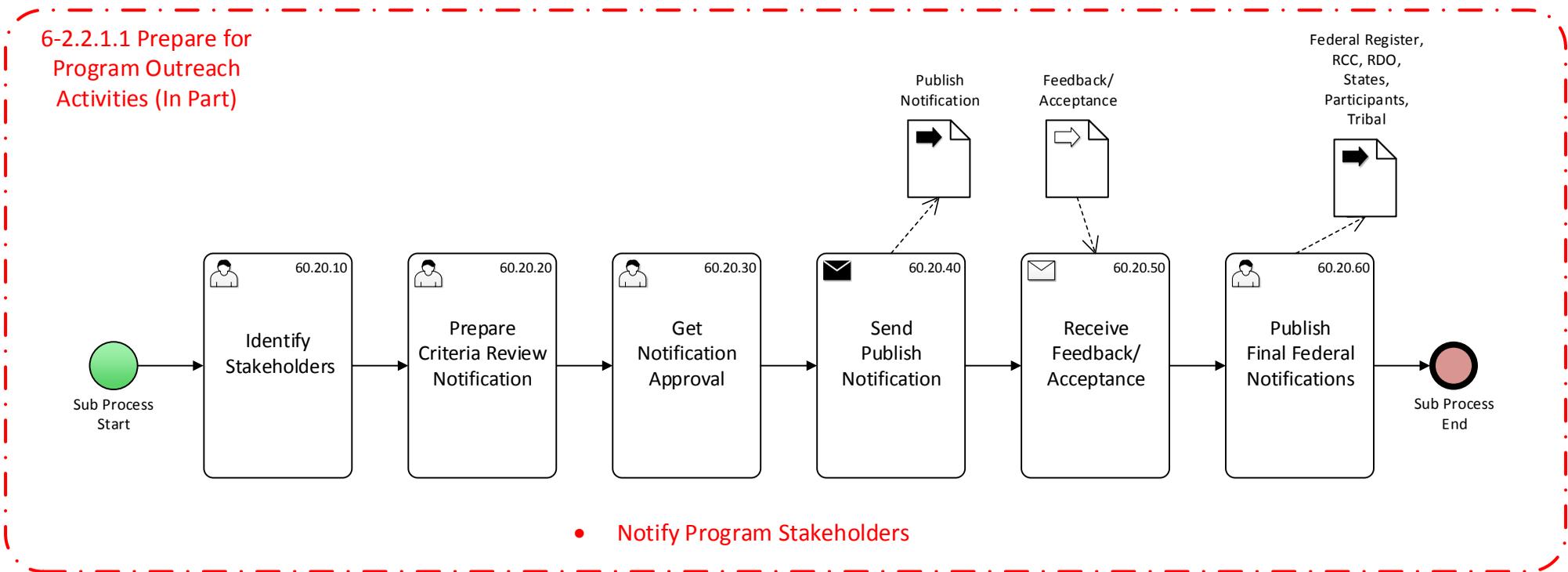
60.10 Prepare Requirements and Criteria

Purpose: To determine the criteria and associated requirements to be used for Geographic Partnership Programs.



60.20 Notify Program Stakeholders

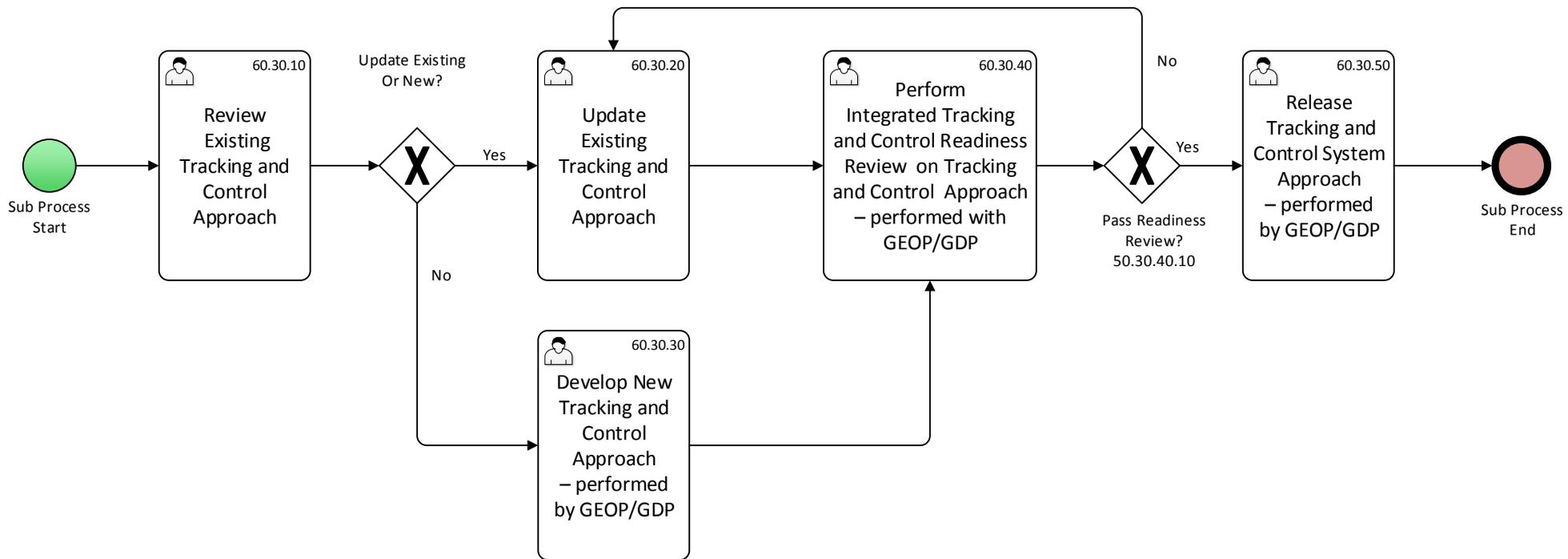
Purpose: To notify Stakeholders about participation in the Geographic Partnership Programs.



60.30 Review Tracking and Control for Updates

Purpose: To create a means to track and control updates received from the Geographic Programs participants.

6-2.2.1.1 Prepare for Program Outreach Activities (In Part)

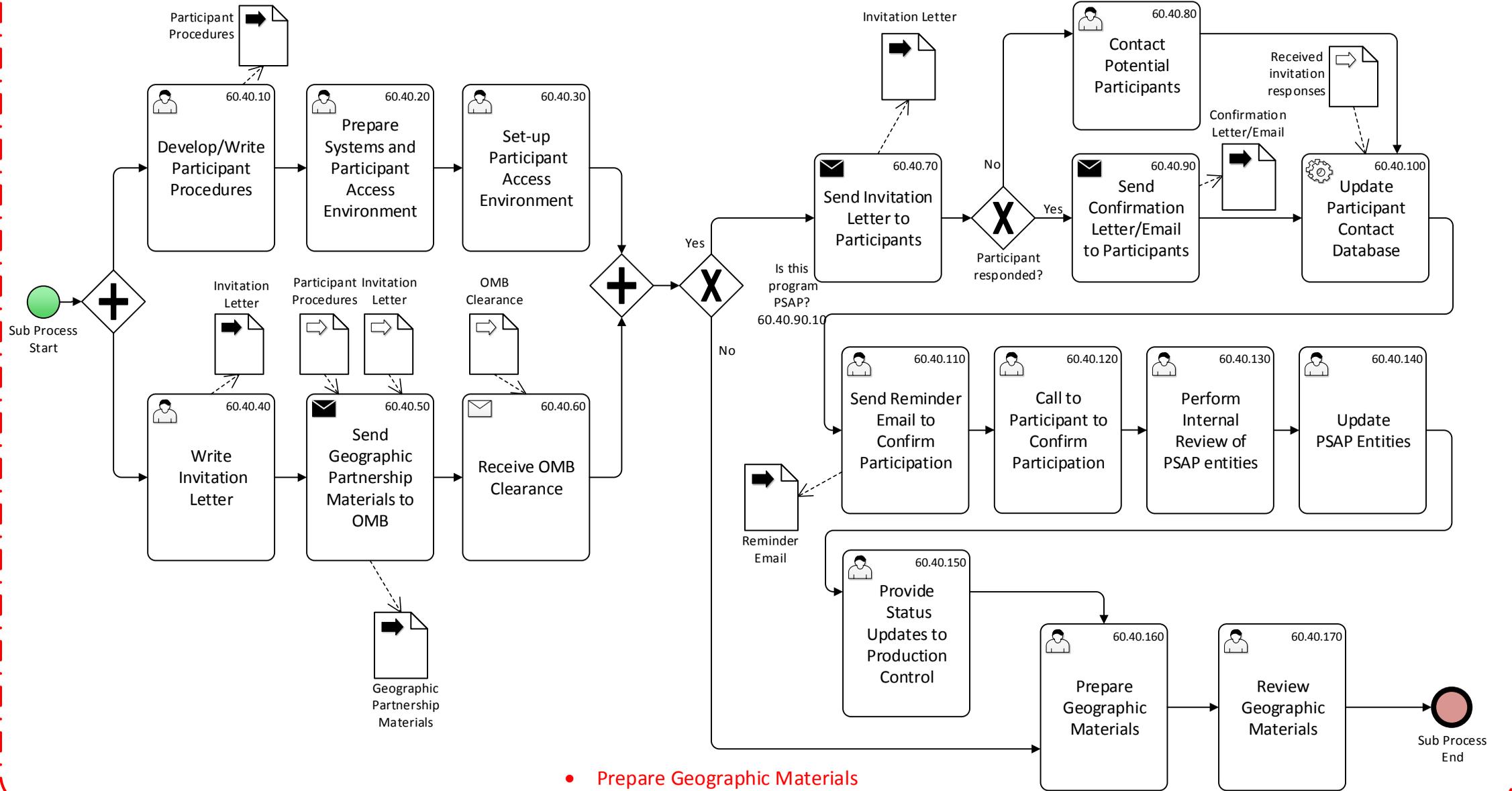


- Review Tracking and Control for Updates

60.40 Prepare Geographic Materials

Purpose: To show the activities associated with preparing geographic delineation materials

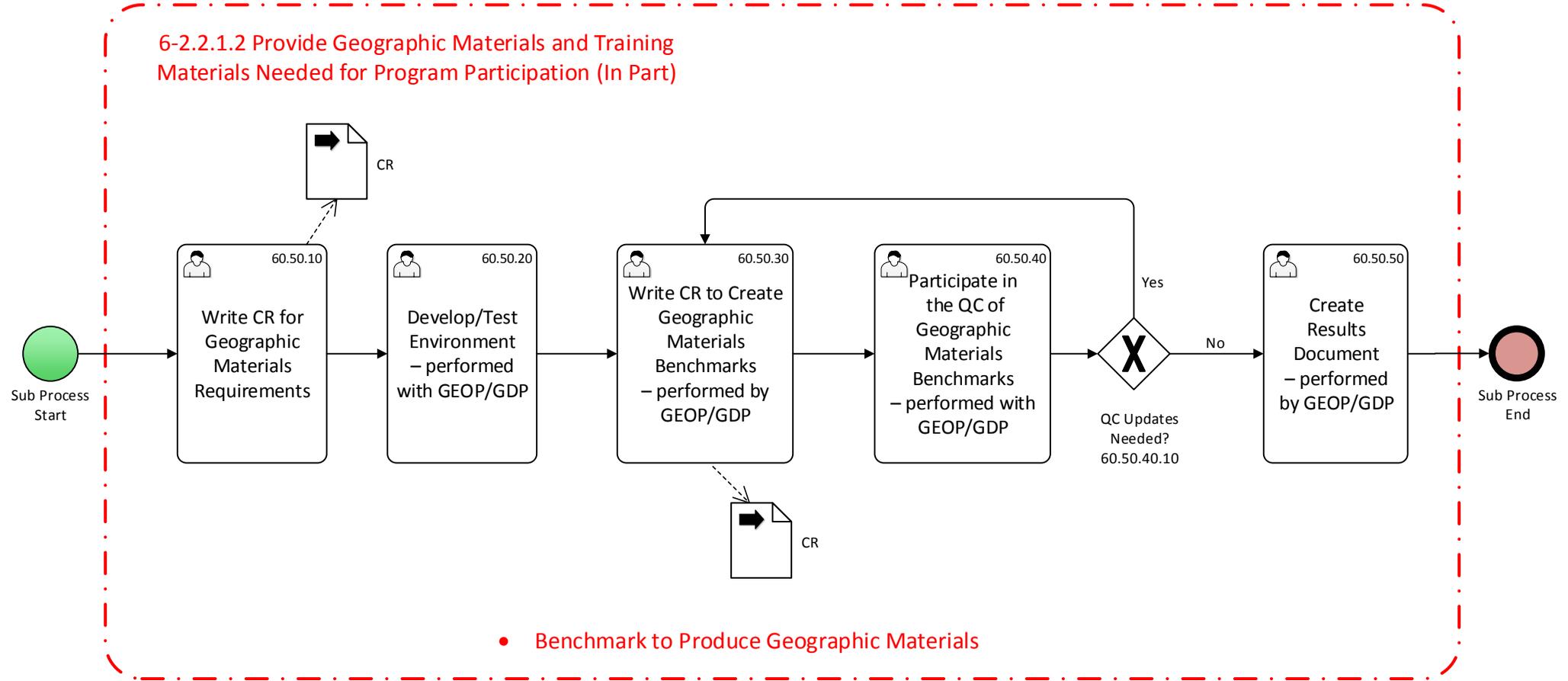
6-2.2.1.2 Provide Geographic Materials and Training Materials Needed for Program Participation (In Part)



• Prepare Geographic Materials

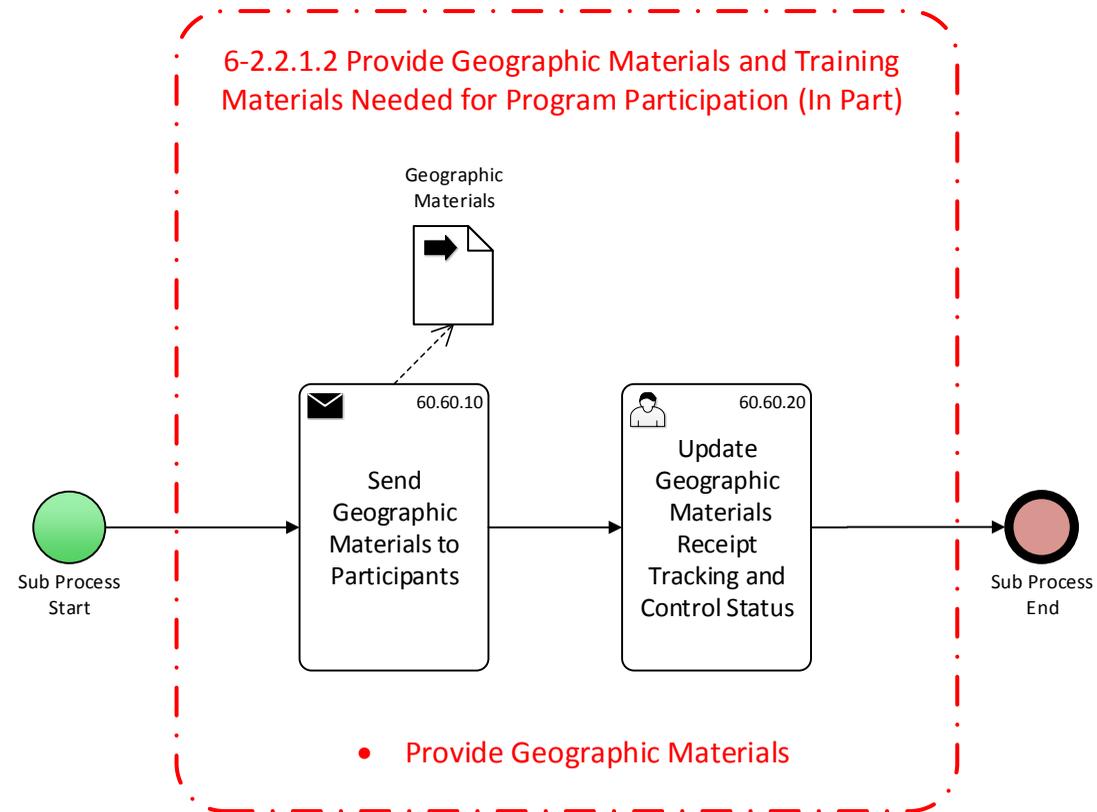
60.50 Benchmark to Produce Geographic Materials

Purpose: To show the activities associated with geographic materials benchmarking.



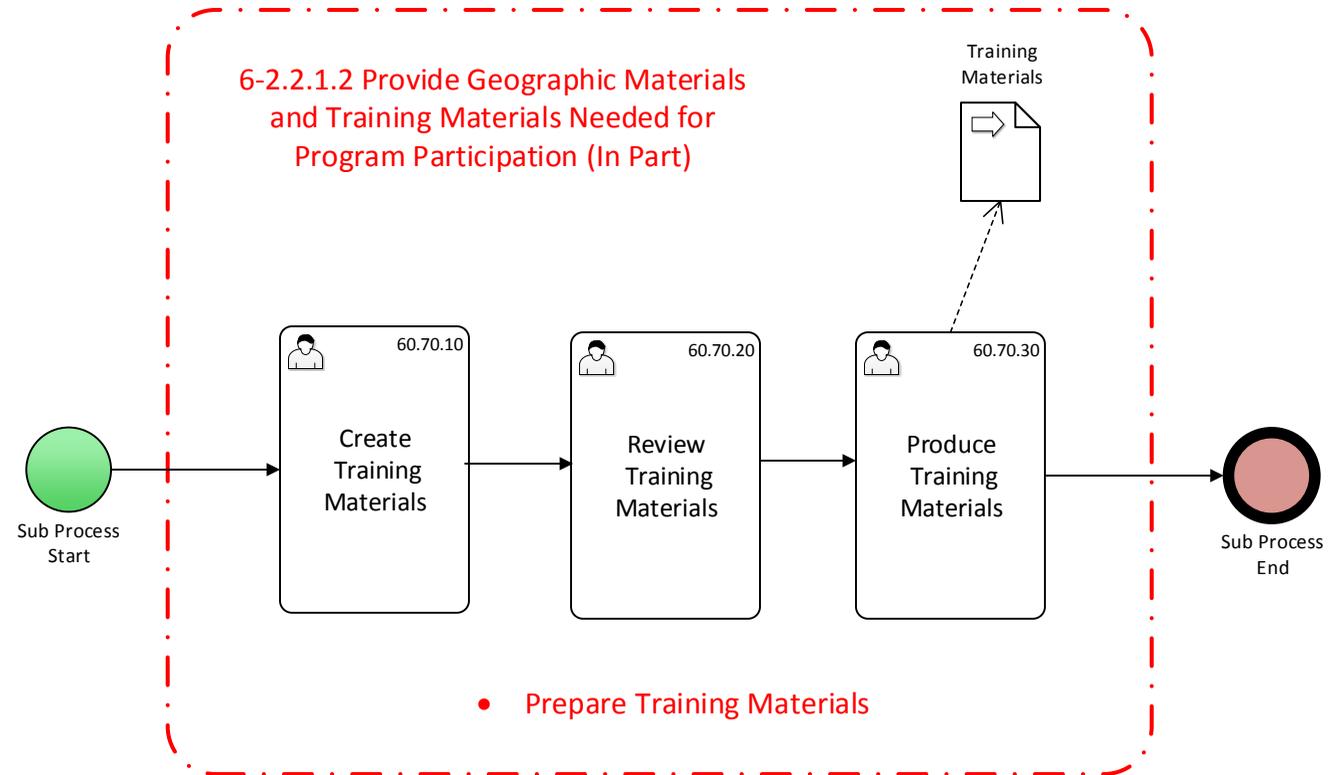
60.60 Provide Geographic Materials

Purpose: To show the activities associated with providing geographic materials to participants.



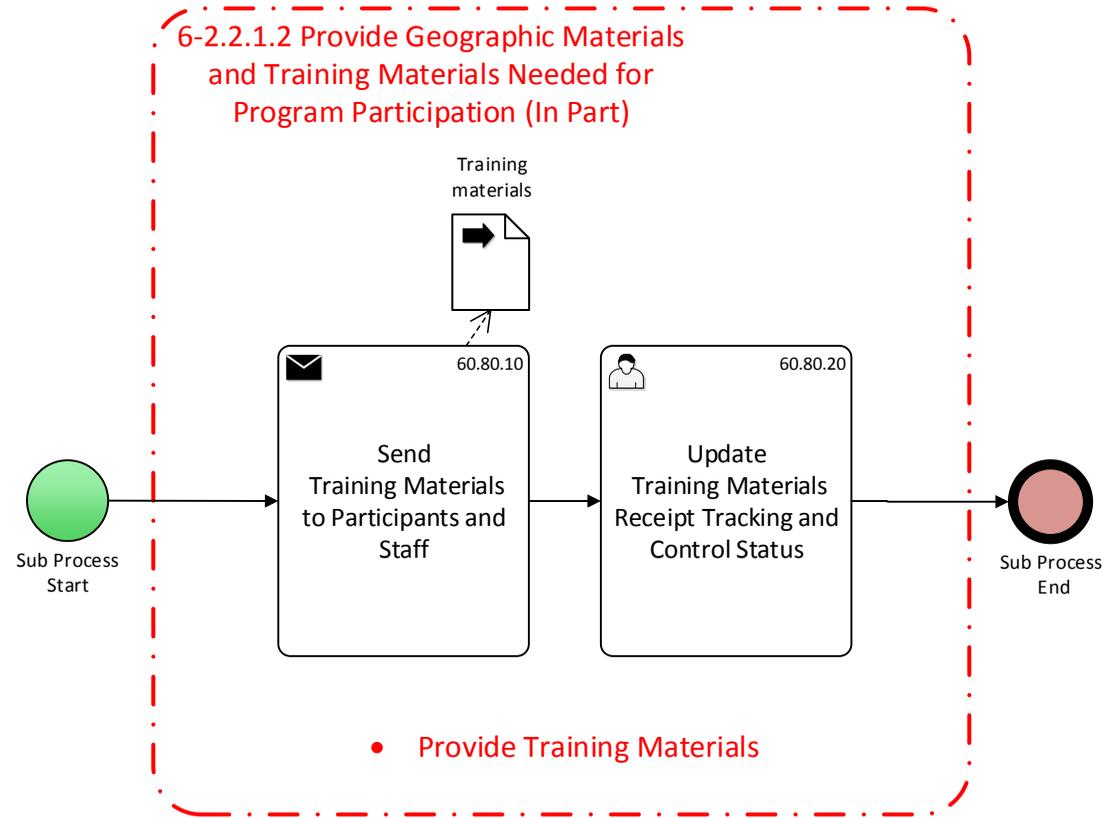
60.70 Prepare Training Materials

Purpose: To prepare internal and external training materials.



60.80 Provide Training Materials

Purpose: To provide the training materials to the Regional Census Centers.

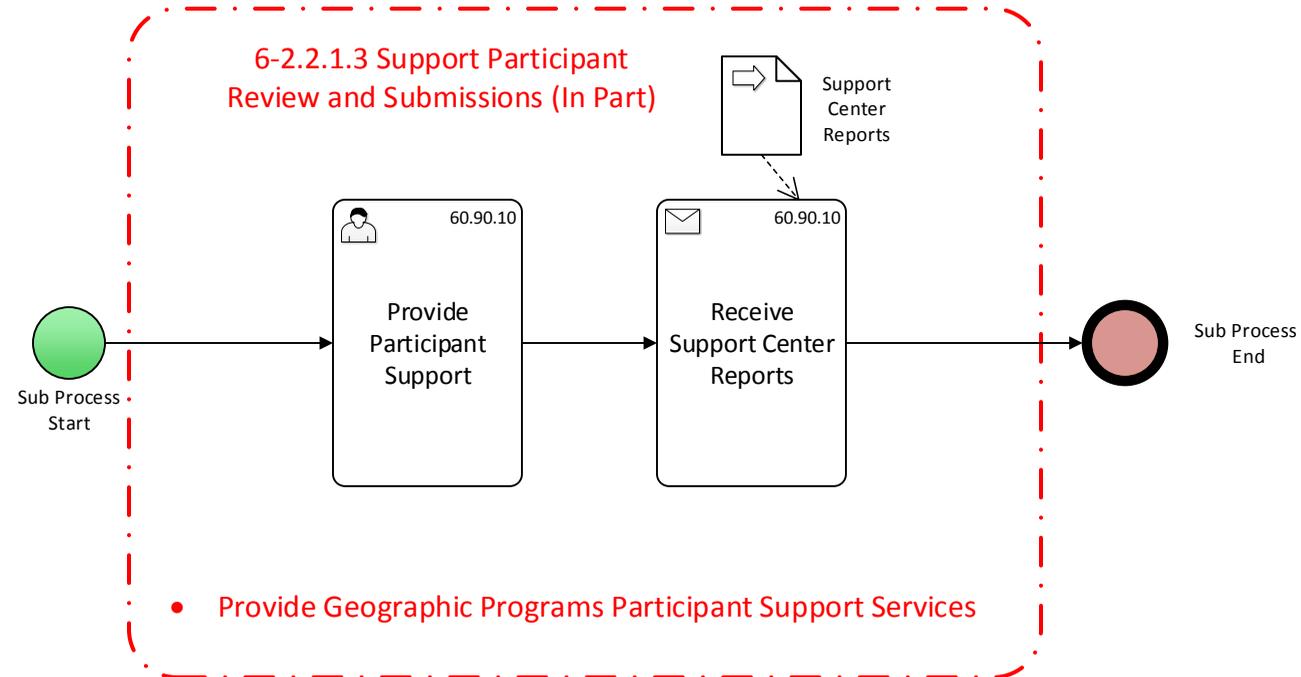




60.90 Provide Geographic Programs Participant Support Services

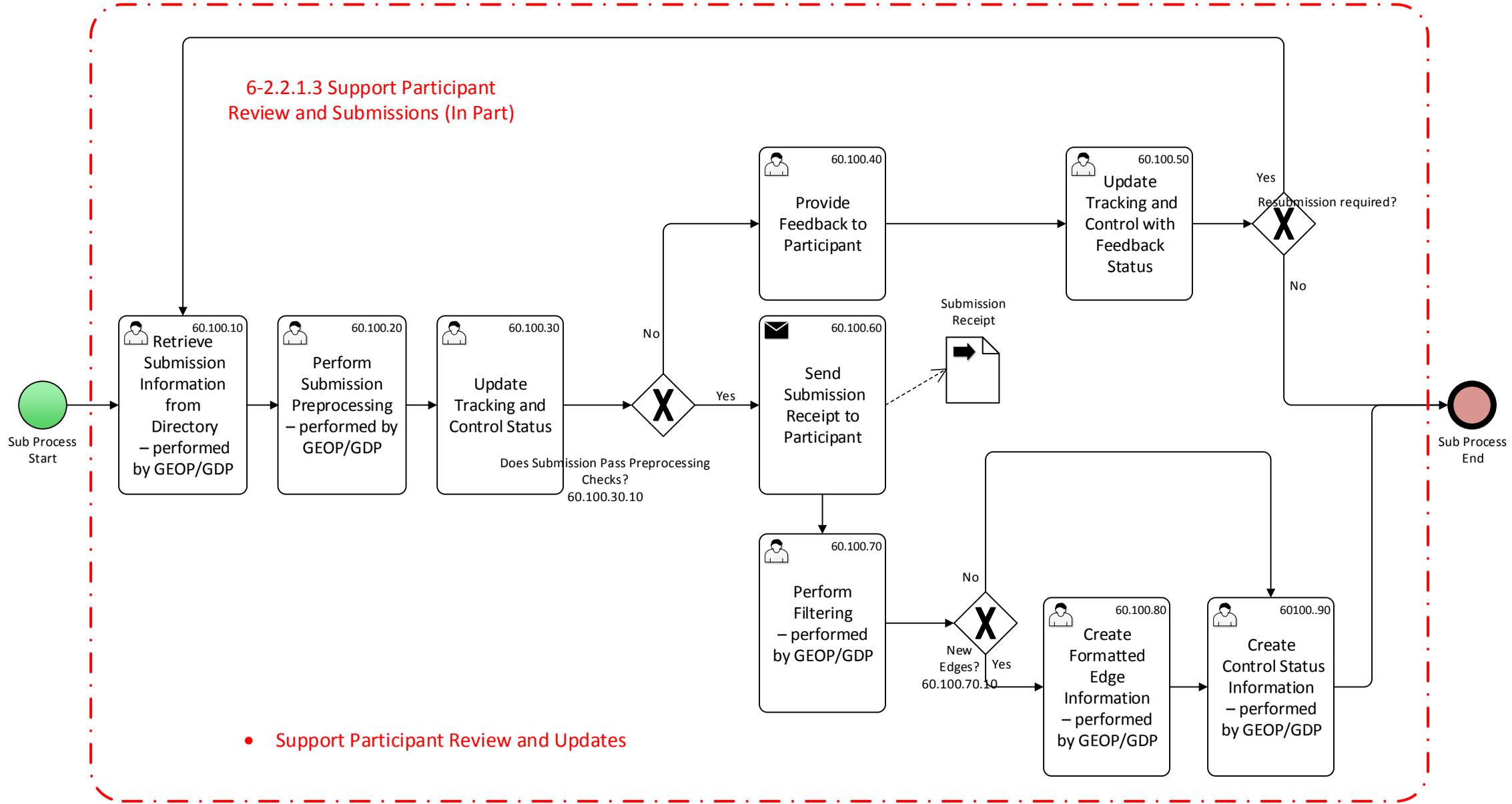
Purpose: To provide support services to the Geographic Programs participants

Geographic Programs Participant Support Services include all Geographic Partnership Programs and LUCA, Redistricting



60.100 Support Participant Review and Updates

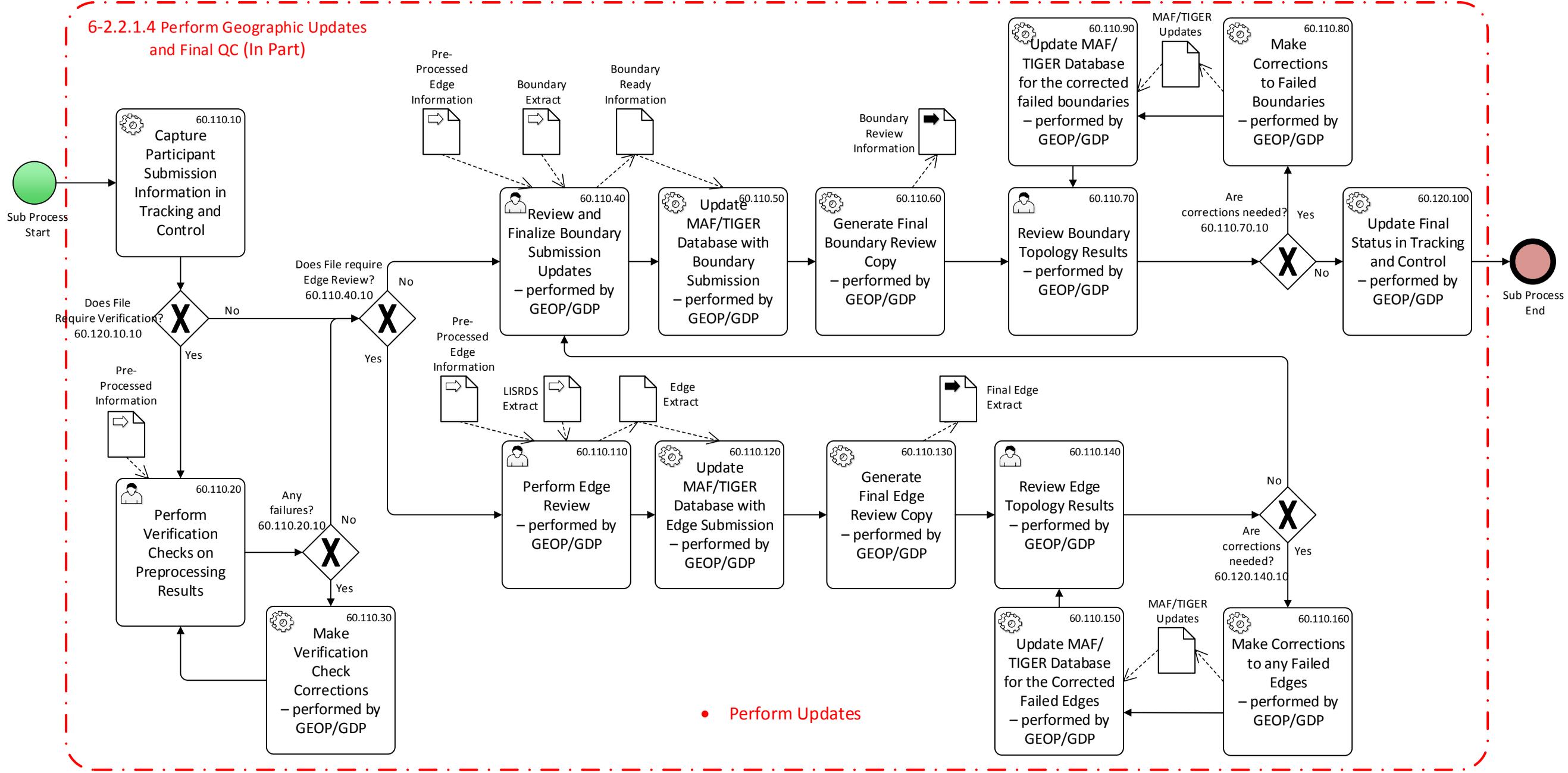
Purpose: To provide support to participants during the review and update period



60.110 Perform Updates

Purpose: To show the activities associated with processing the boundary and edge information received from participants

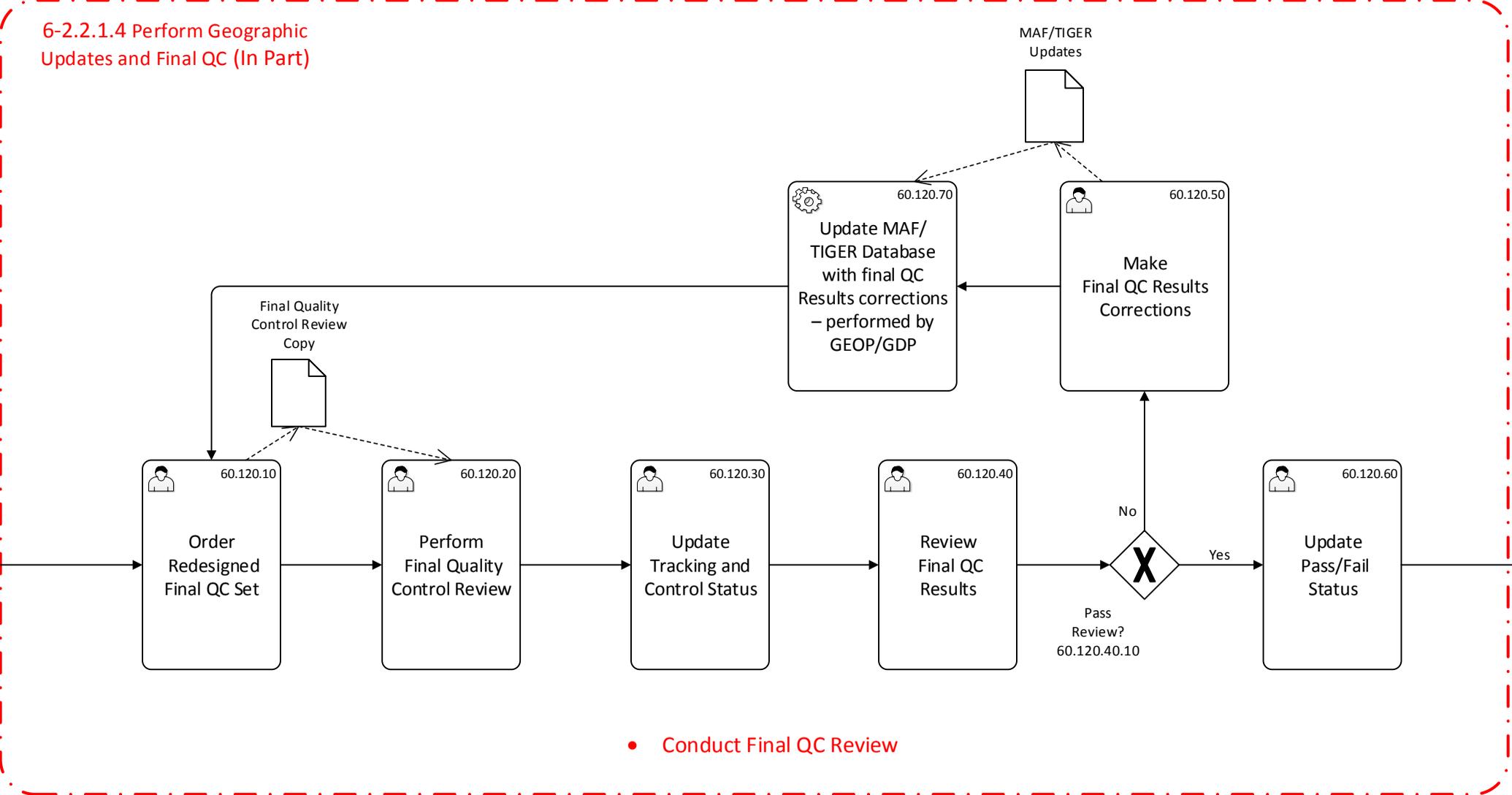
6-2.2.1.4 Perform Geographic Updates and Final QC (In Part)



● Perform Updates

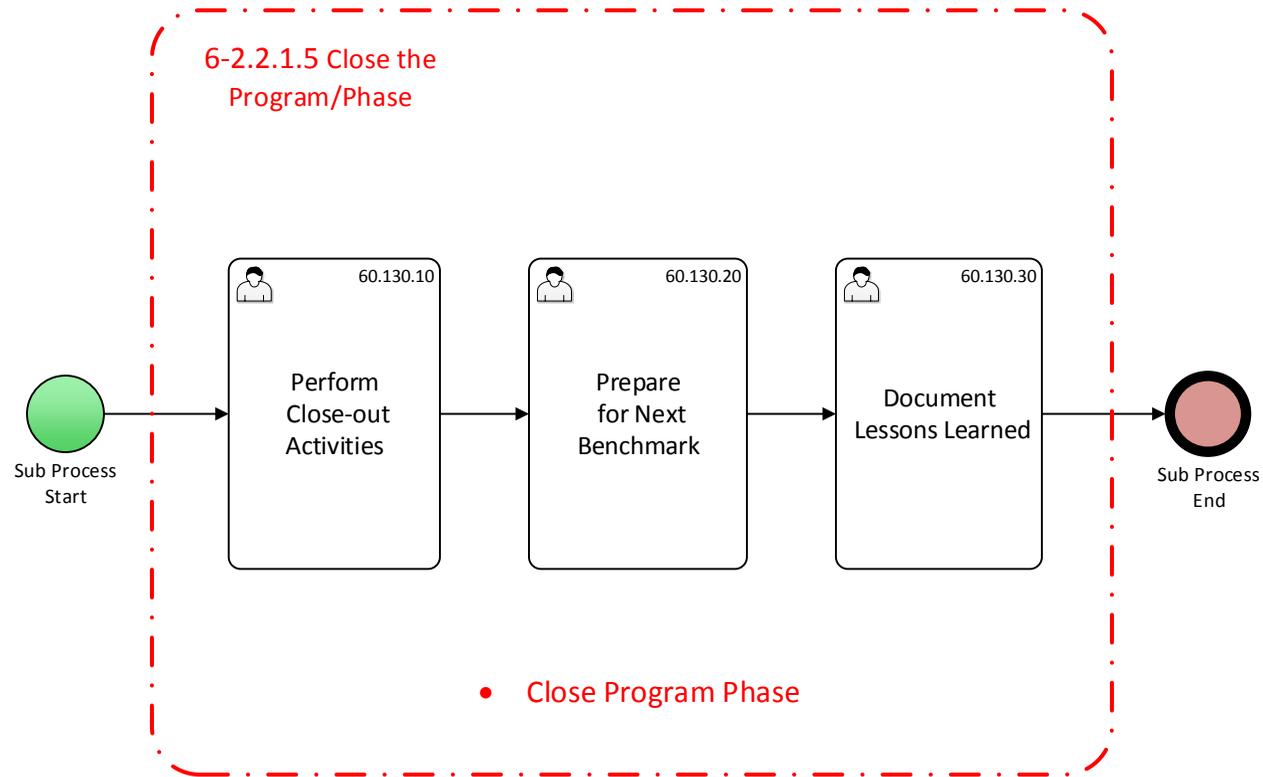
60.120 Conduct Final Quality Control Review

Purpose: To show the activities associated with processing the boundary and edge information received from participants



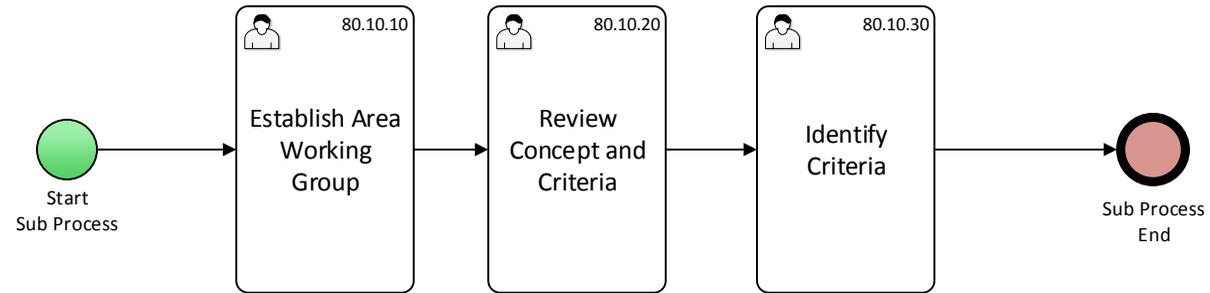
60.130 Close Program Phase

Purpose: To show the activities associated with closing out all activities with participants and updating the source repository with new information, preparing for the next benchmark and documenting lessons learned.



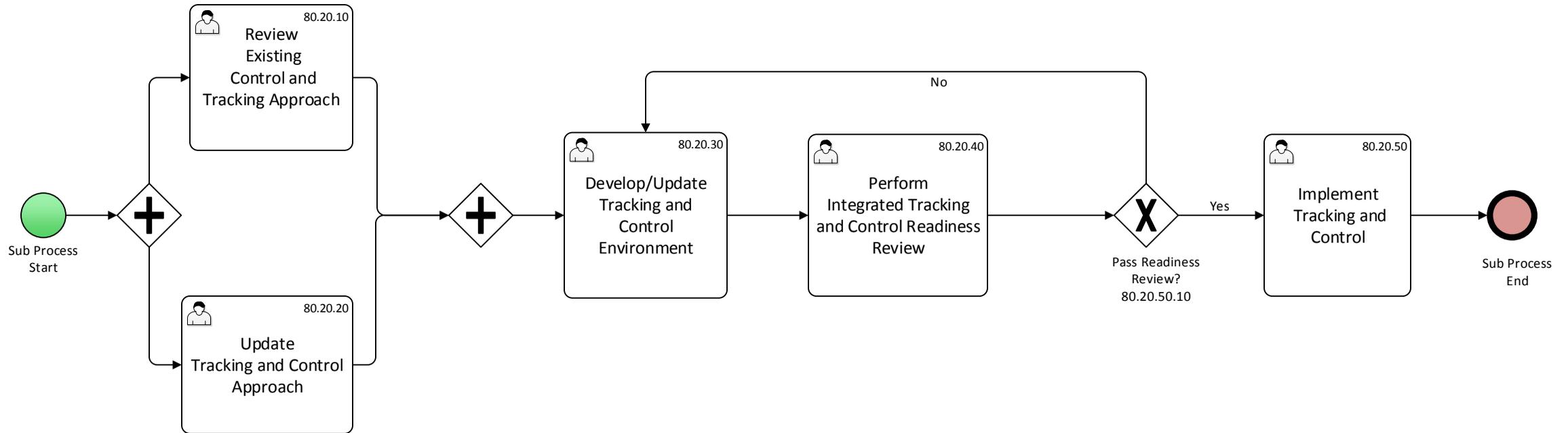
80.10 Develop GARP Criteria

Purpose: To develop and review criteria for the Geographic Area Reconciliation



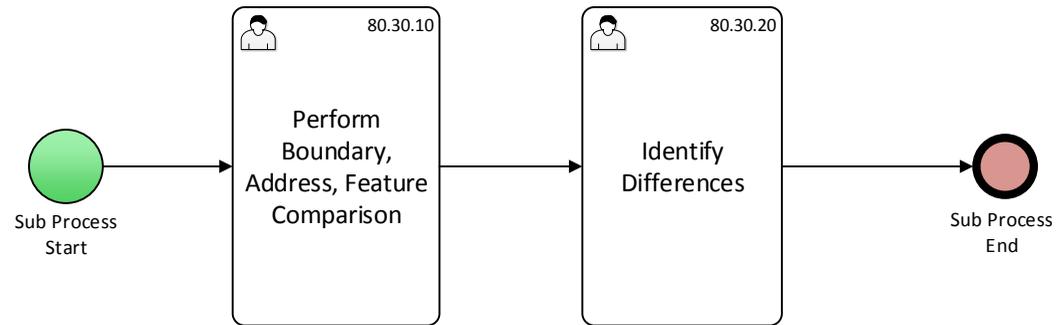
80.20 Create GARP Tracking and Control

Purpose: To create a means to track and control updates during Geographic Areas Reconciliation Program (GARP)



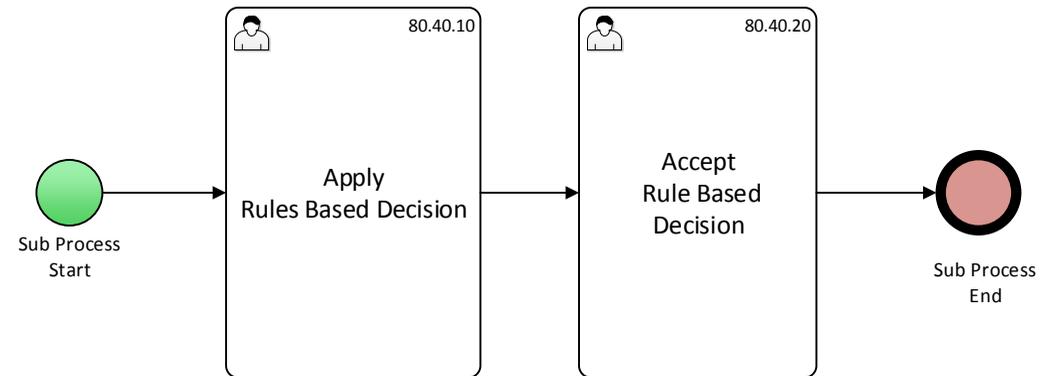
80.30 Identify Geographic Area Discrepancies

Purpose: To allow for the differences between boundary, address, features to be identified



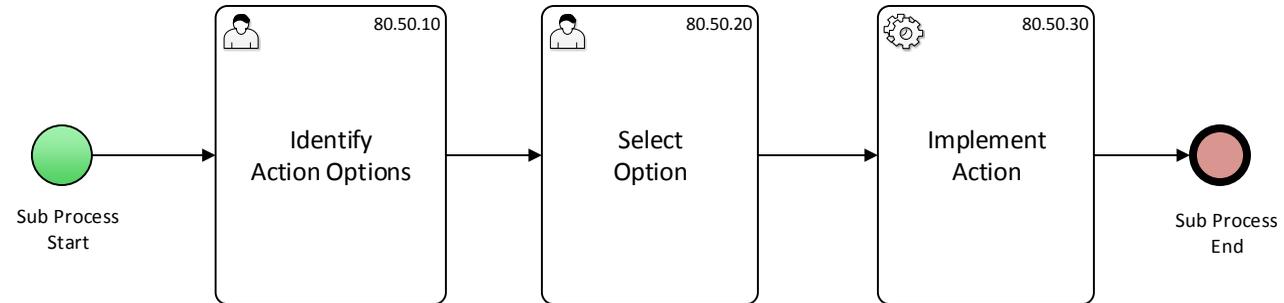
80.40 Make Rules Based Decision

Purpose: To allow for the a rules based decision based upon specific criteria to be applied and accepted



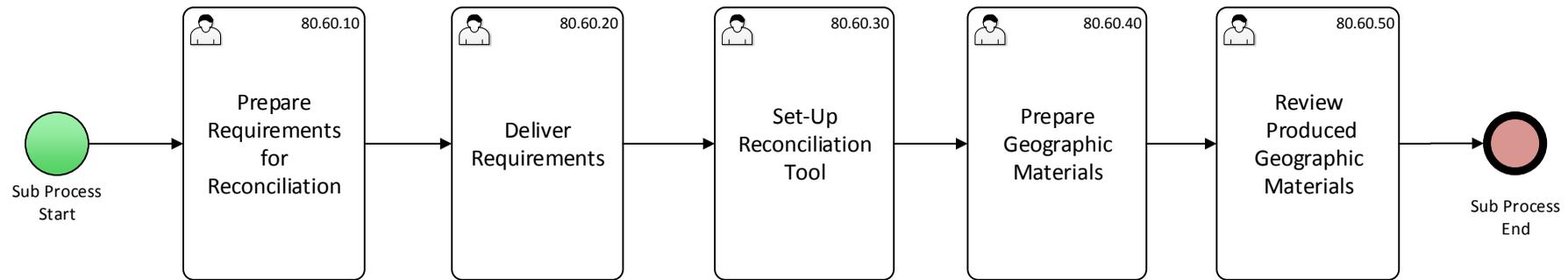
80.50 Follow-up to Determine Action

Purpose: To allow the identification, selection and implementation of follow-up



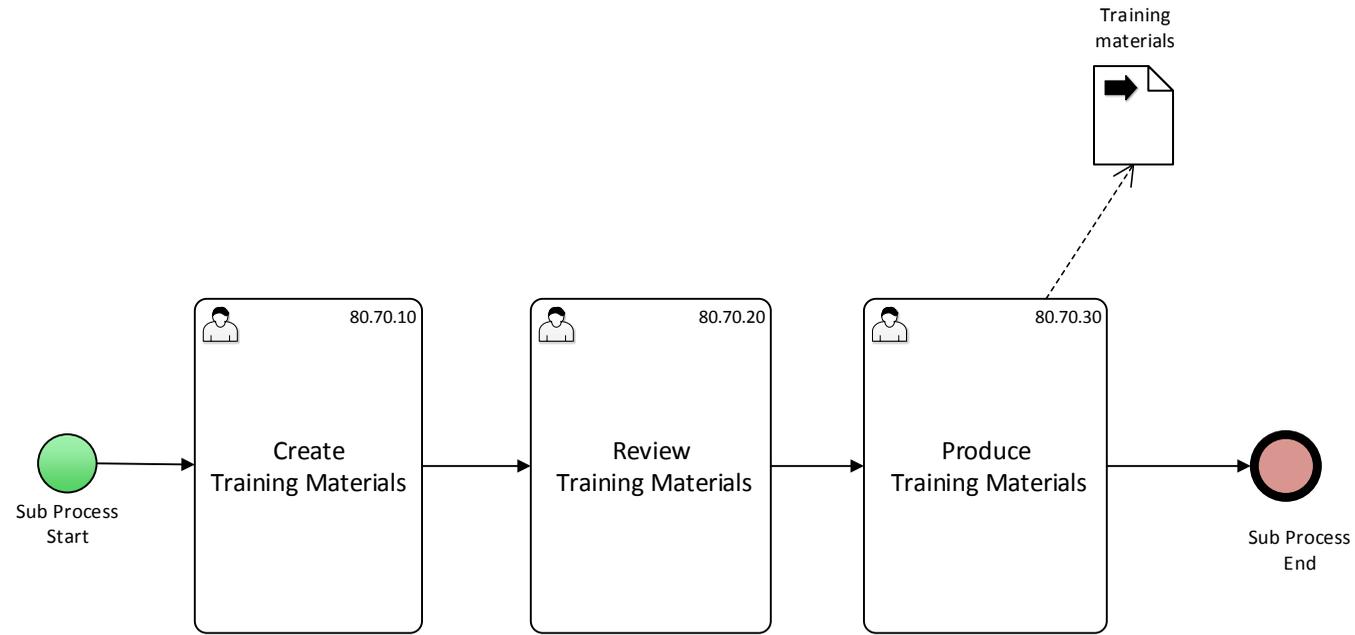
80.60 Produce GARP Geographic Materials

Purpose: To produce and review produced Geographic Materials prior to delivery



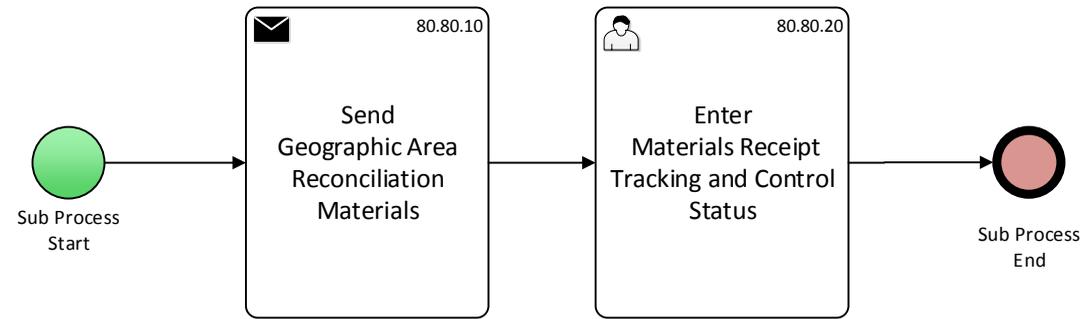
80.70 Prepare GARP Training Materials

Purpose: To allow for the creation, review and production of GARP training materials



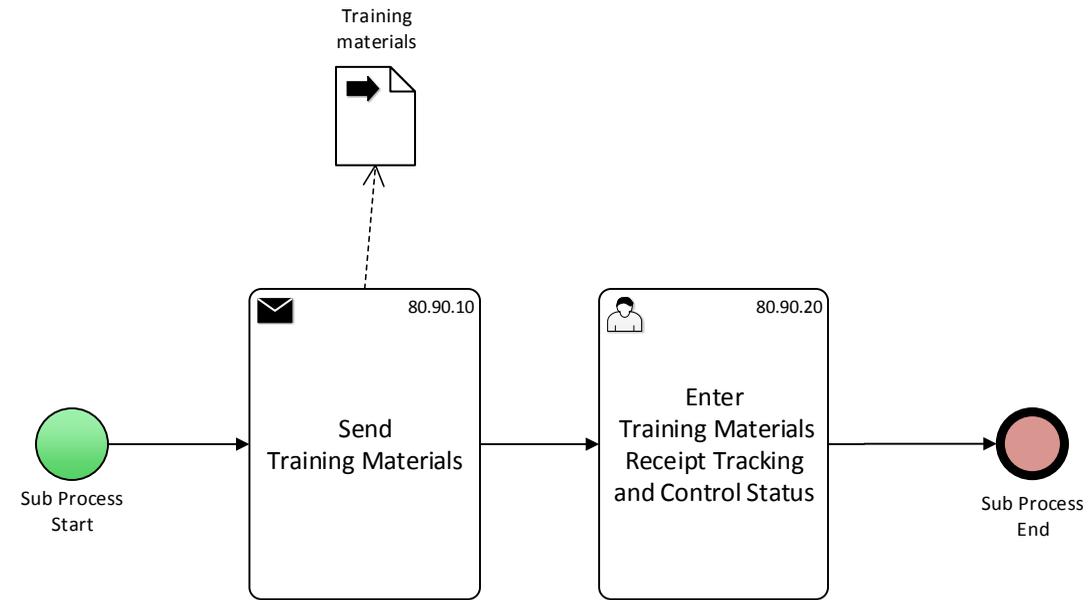
80.80 Provide GARP Geographic Materials

Purpose: To provide the GARP Geographic Materials to the customer and record materials receipt



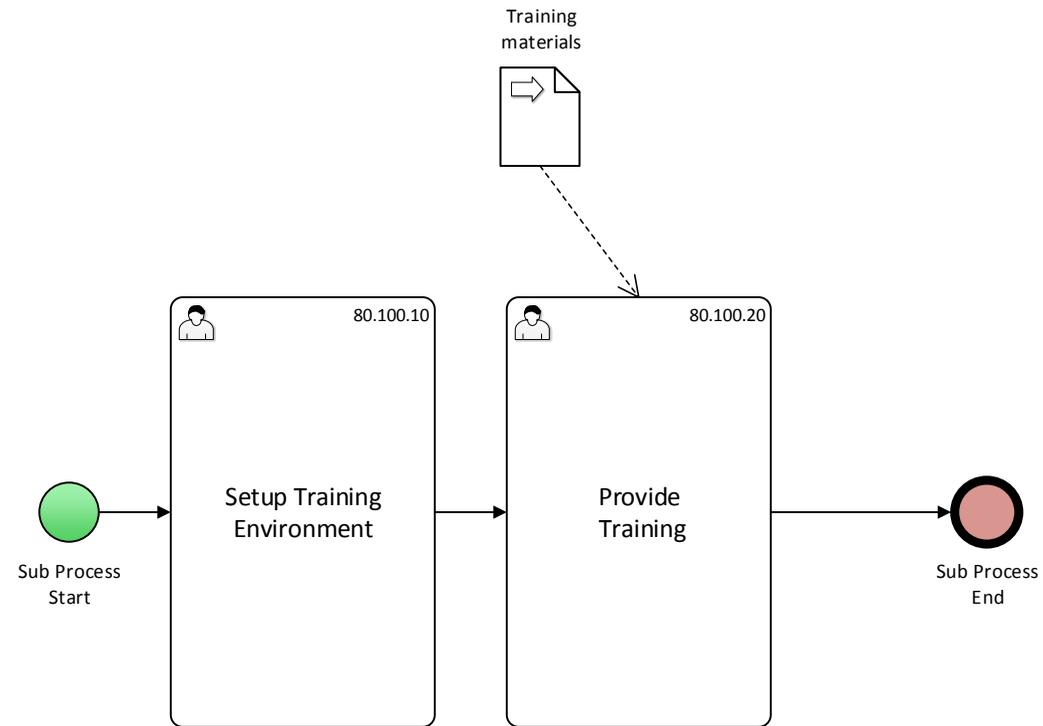
80.90 Provide GARP Training Materials

Purpose: To provide the GARP training materials to the customer



80.100 Conduct GARP Training

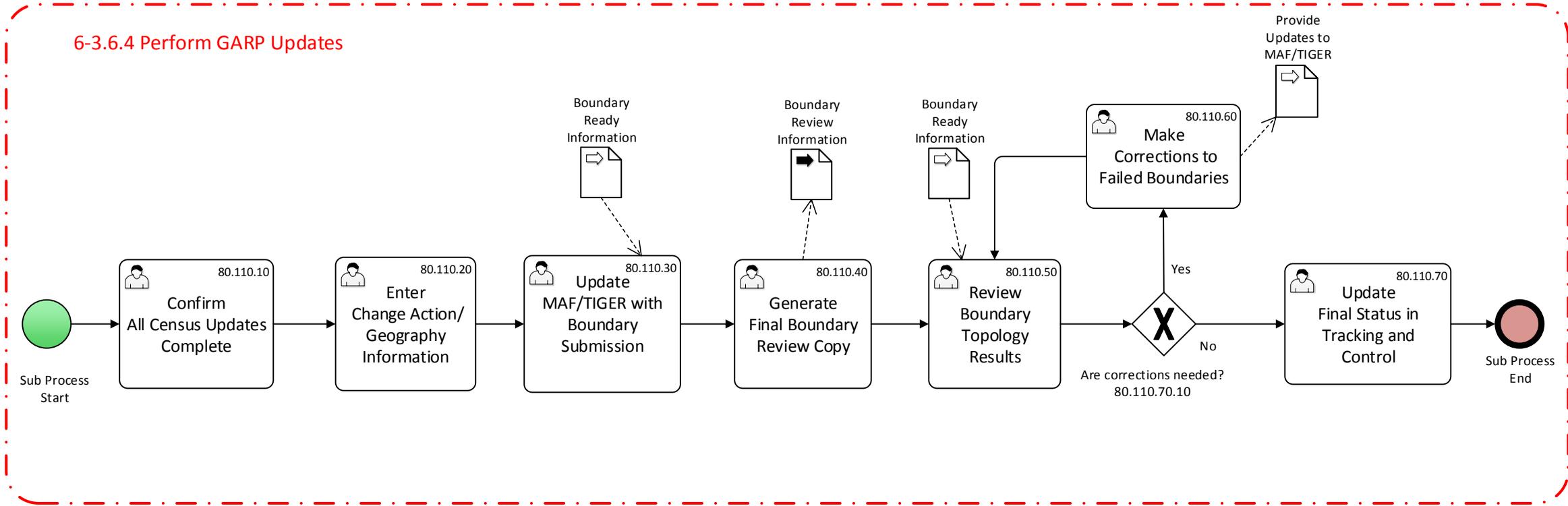
Purpose: To conduct GARP training



80.110 Perform GARP Updates

Purpose: To show the activities associated with updating the boundary information

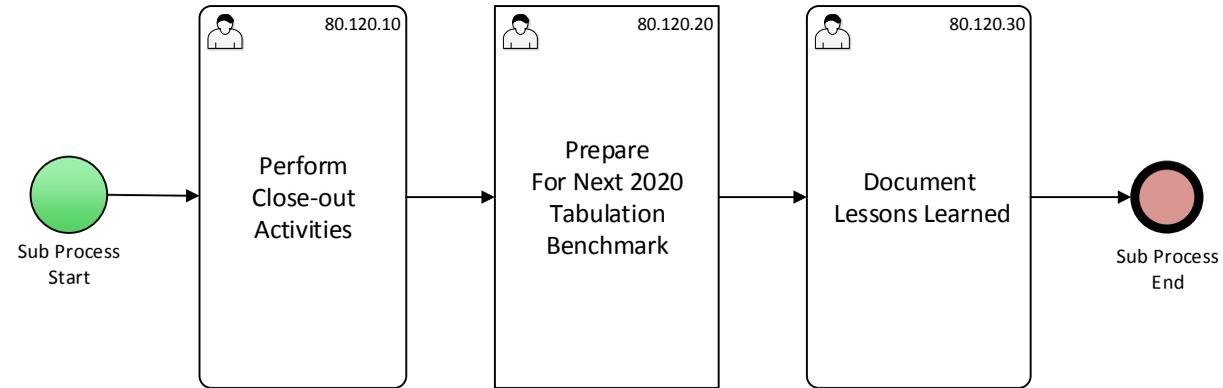
Geographic Partnership Processing BPM 60.120 supports activities 80.110.30 through 80.110.70





80.120 Close GARP

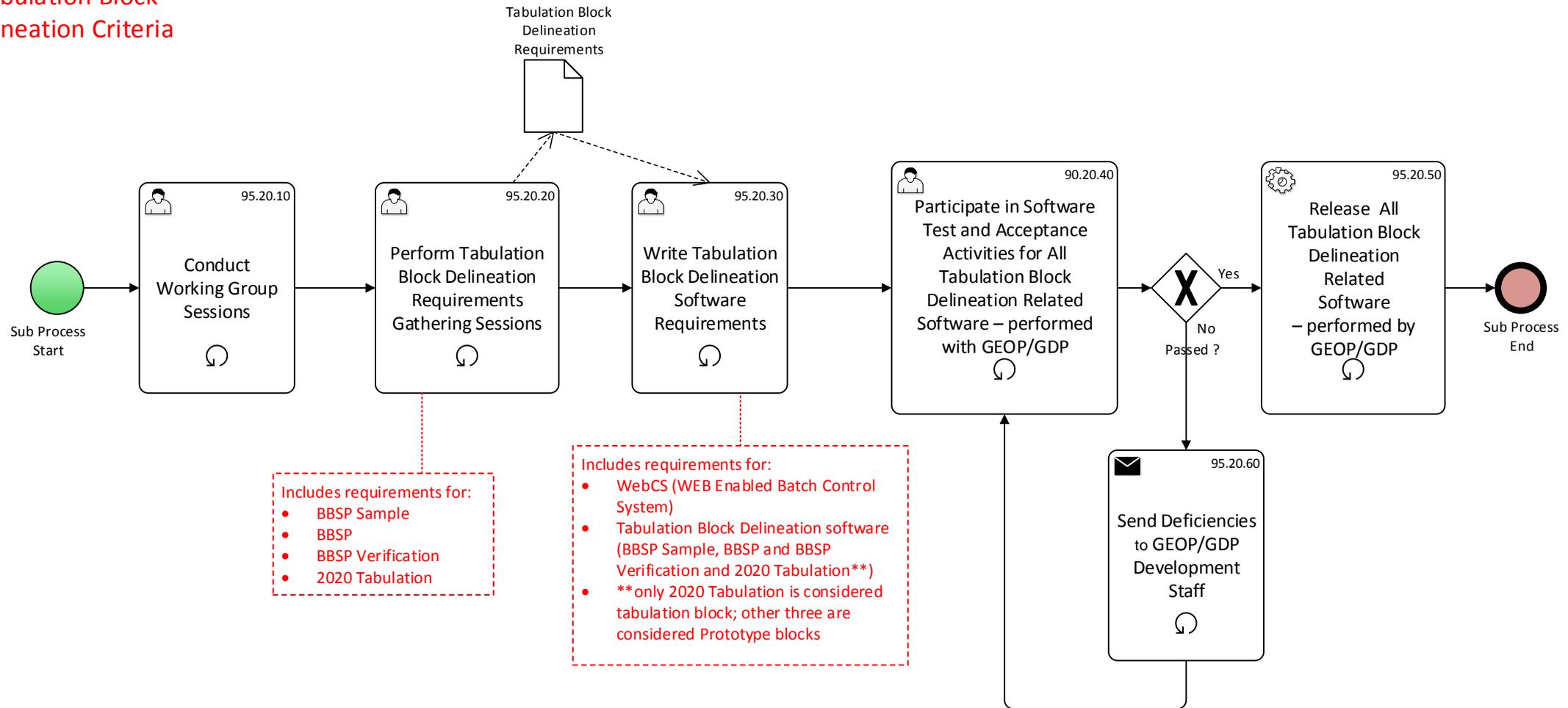
Purpose: To close all 2020 GARP activities



95.20 Develop Tabulation Block Delineation Criteria

Purpose: To identify the various tabulation block customer requirements and write software requirements to support tabulation blocks in the MAF/TIGER database

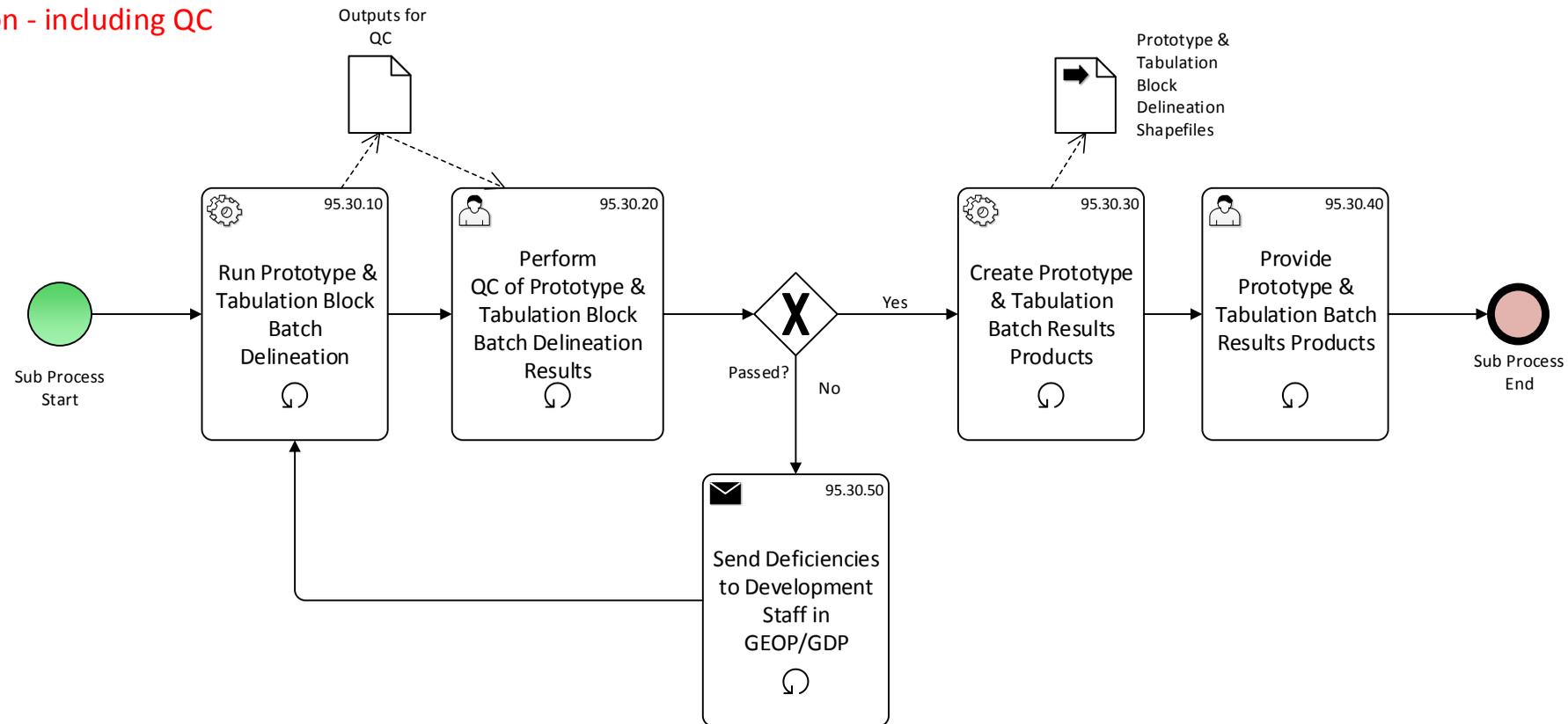
6-1.2.1.2 Develop Tabulation Block Delineation Criteria



95.30 Perform Tabulation Block Batch Delineation

Purpose: To delineate prototype and tabulation blocks in the MAF/TIGER Database via a batch delineation process.

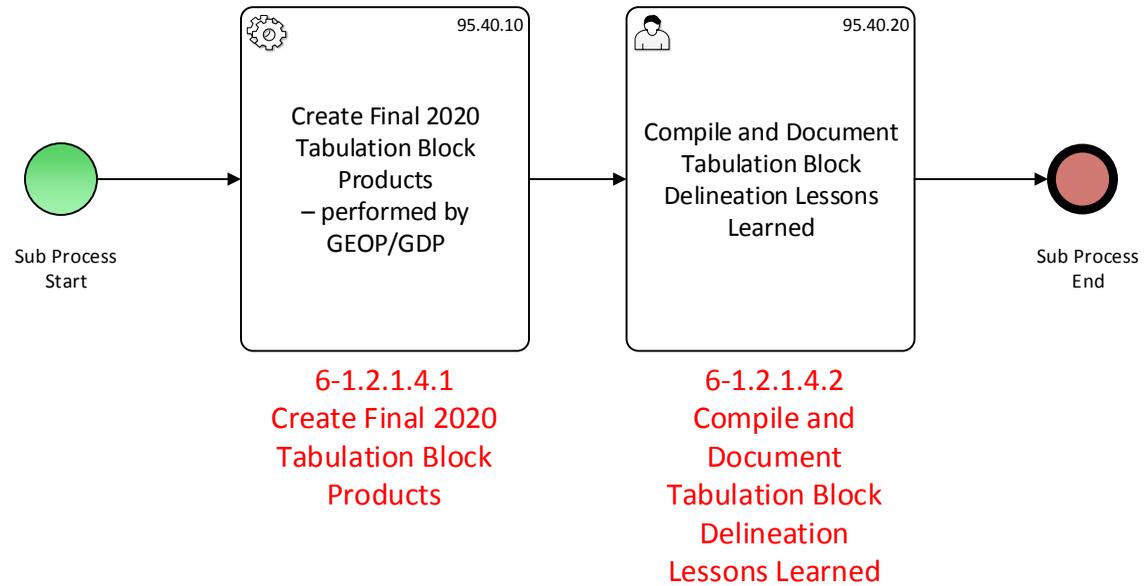
6-1.2.1.3 Perform Tabulation Block Batch Delineation - including QC



95.40 Closeout Tabulation Block Delineation

Purpose: To create final 2020 Tabulation block data products, adequately document Lessons Learned and close-out 2020 Prototype and Tabulation block delineation activities.

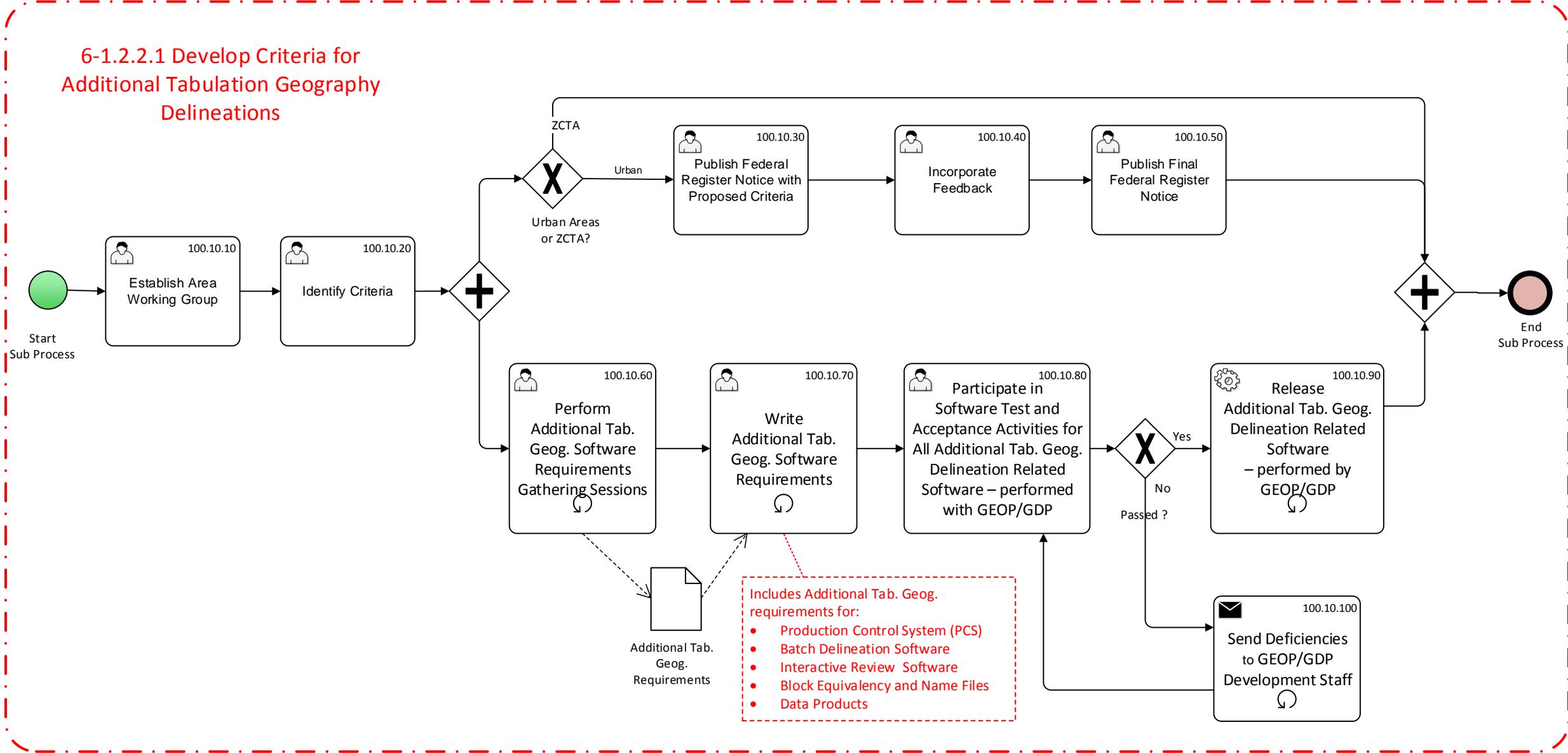
6-1.2.1.4 Tabulation Block Delineation Closeout



100.10 Develop Criteria for Additional Tabulation Geography Delineations

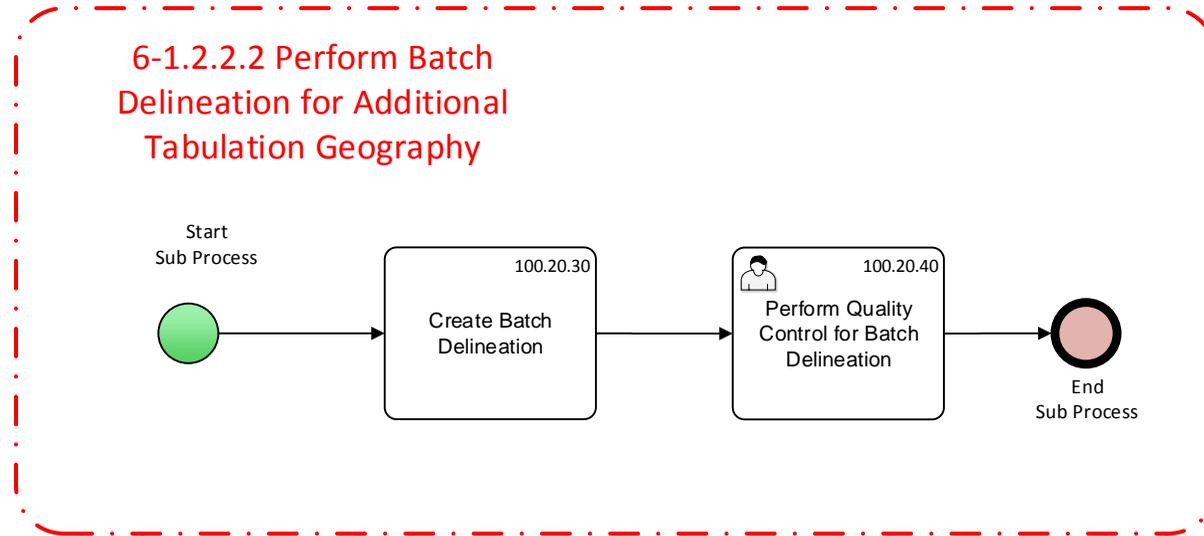
Purpose: To show the activities associated with creating the ZCTA and Urban Areas delineation criteria

6-1.2.2.1 Develop Criteria for Additional Tabulation Geography Delineations



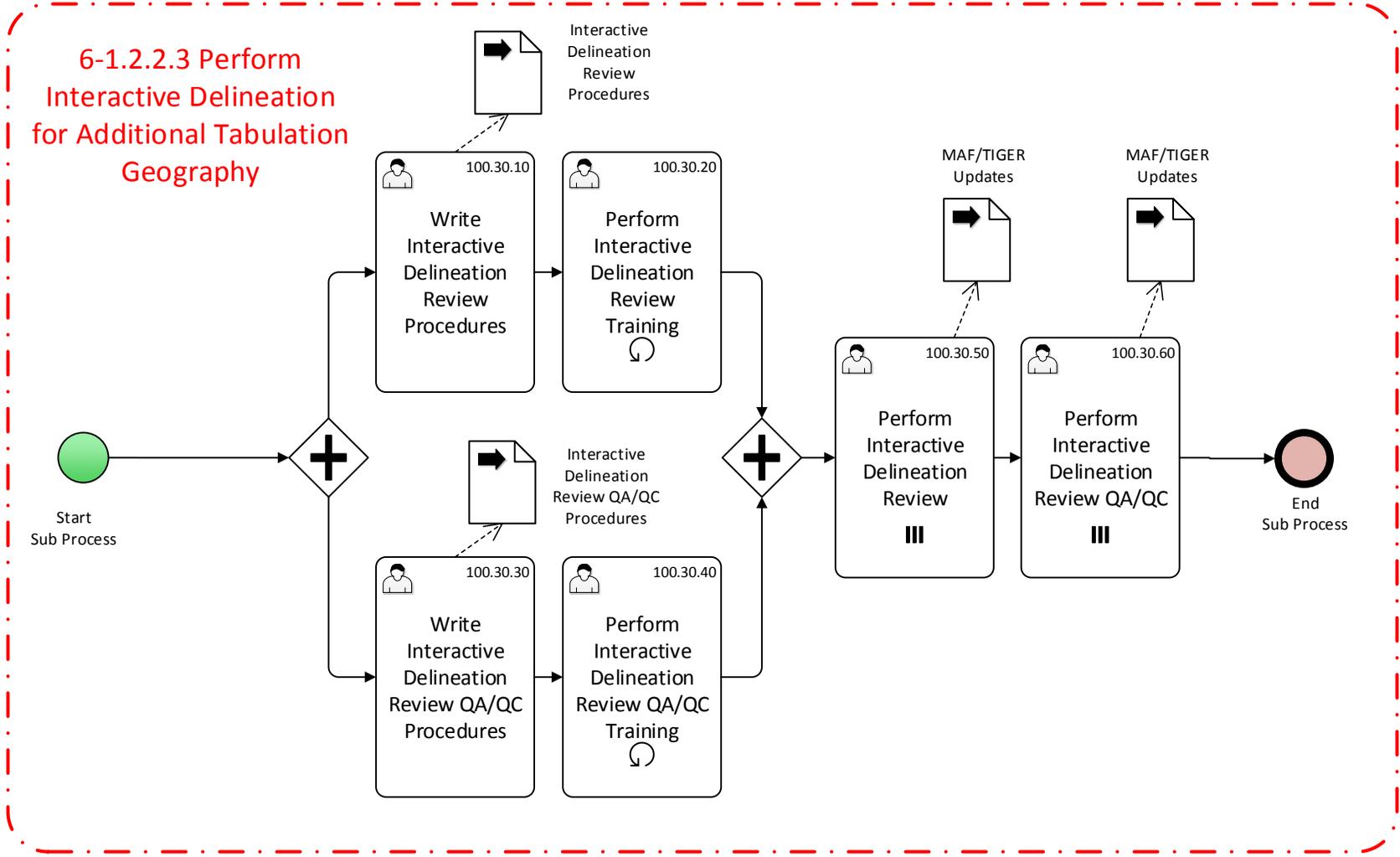
100.20 Perform Batch Delineation for Additional Tabulation Geography

Purpose: To show the activities for performing the ZCTA and Urban Areas Batch Delineation



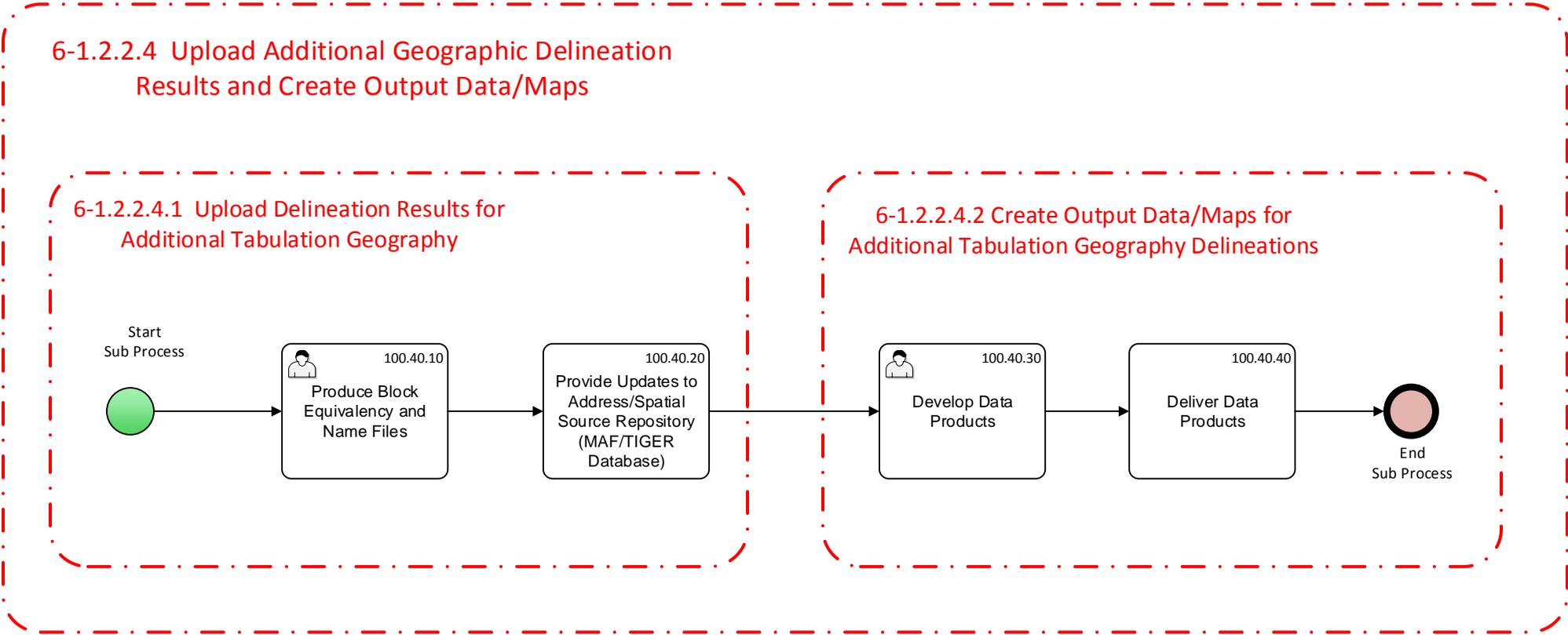
100.30 Perform Interactive Delineation for Additional Tabulation Geography

Purpose: To show the activities for performing the ZCTA and Urban Areas Batch Delineation



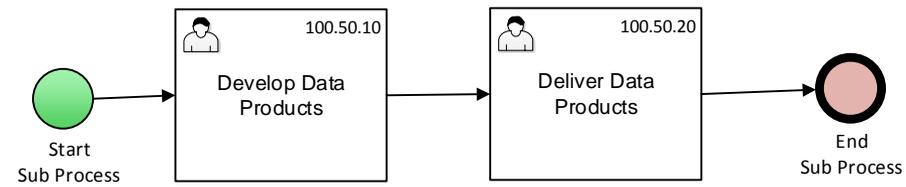
100.40 Upload Additional Geographic Delineation Results and Create Output Data/Maps

Purpose: To show the activities for performing the ZCTA and Urban Areas Batch Delineation



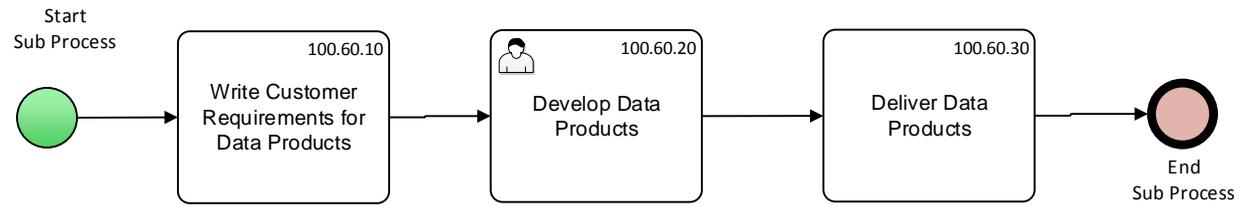
100.50 Create Output Data/Maps for Additional Tabulation Geography Delineations

Purpose: To show the activities for creating ZCTA and Urban Areas Data Products



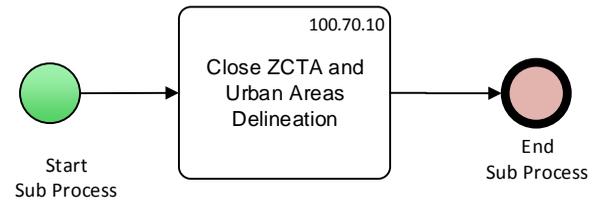
100.60 Create Output Data/Maps

Purpose: To show the activities for creating ZCTA and Urban Areas Data Products



100.70 Close Delineations

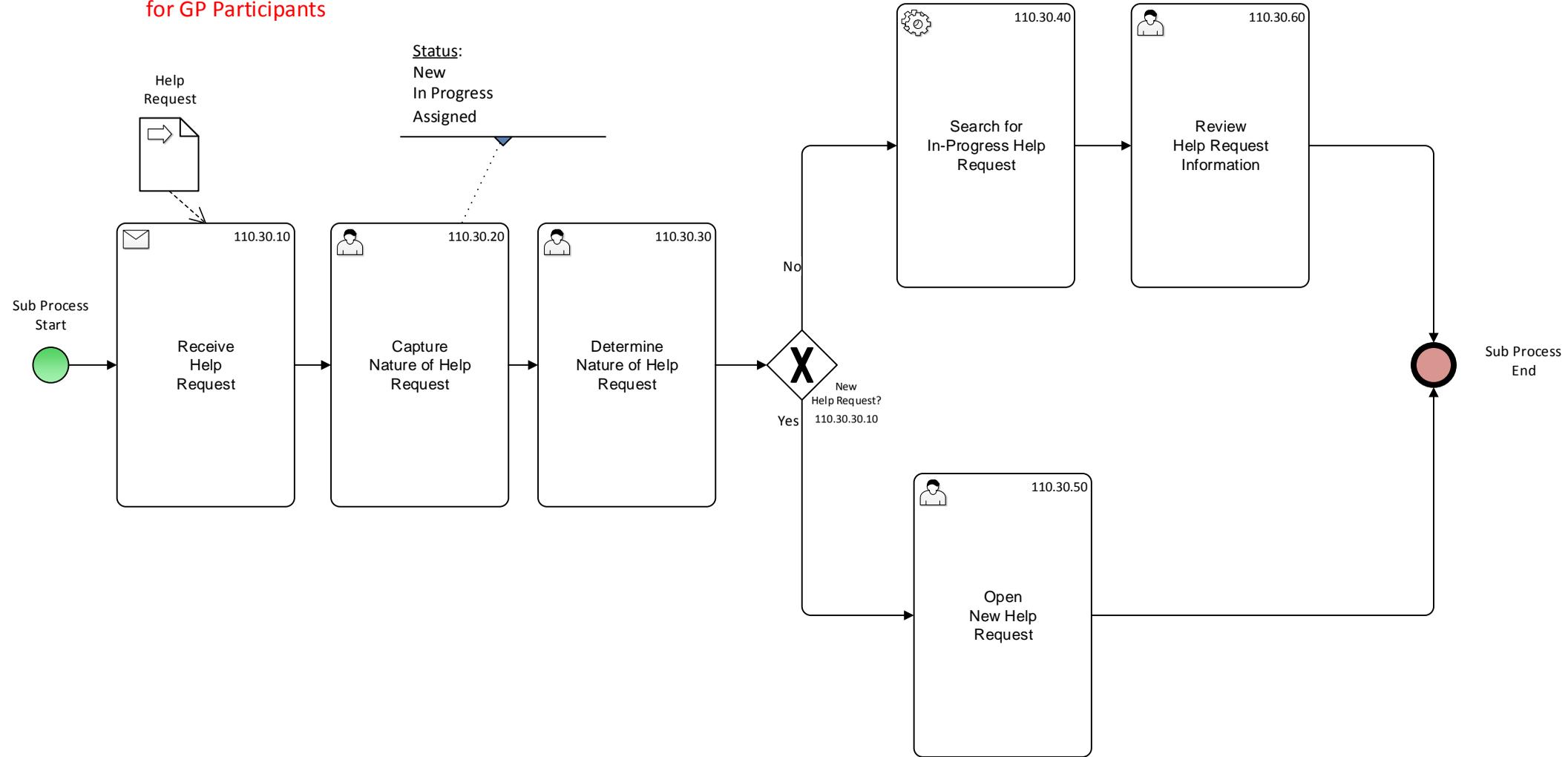
Purpose: To show the activities for closing ZCTA and Urban Areas



110.30 Perform Issue Identification for GP Participants

Purpose: To answer inbound participant inquiries and manage help requests

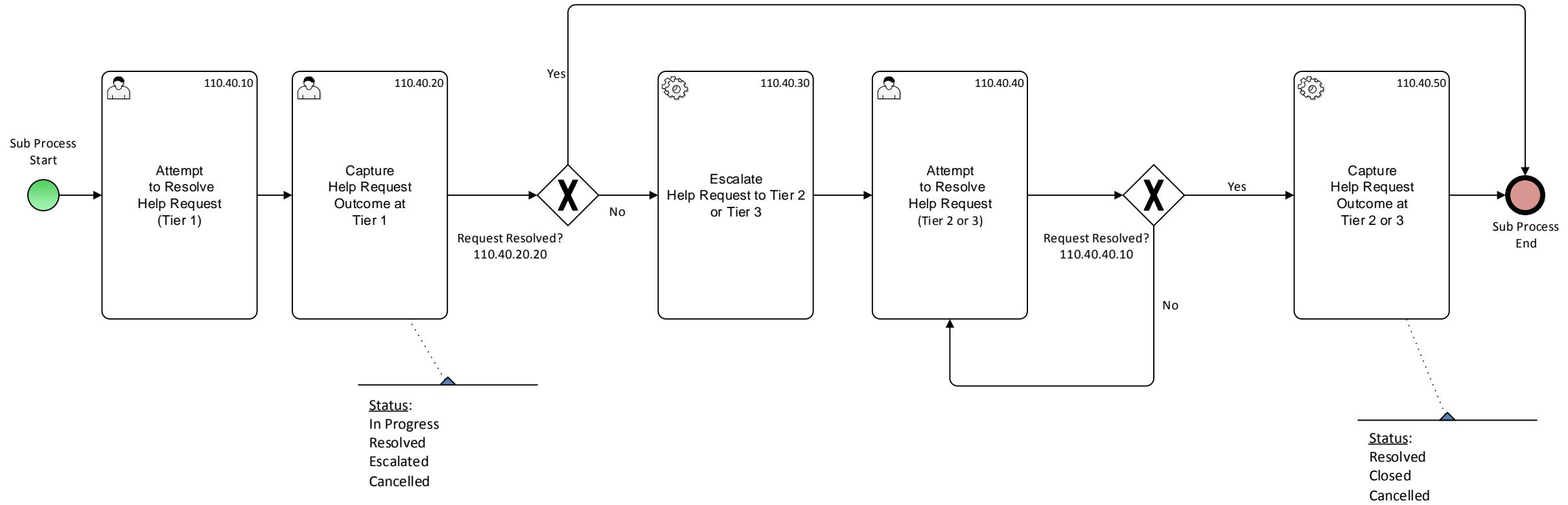
6-2.3.2.1 Perform Issue Identification for GP Participants



110.40 Perform Issue Resolution for GP Participants

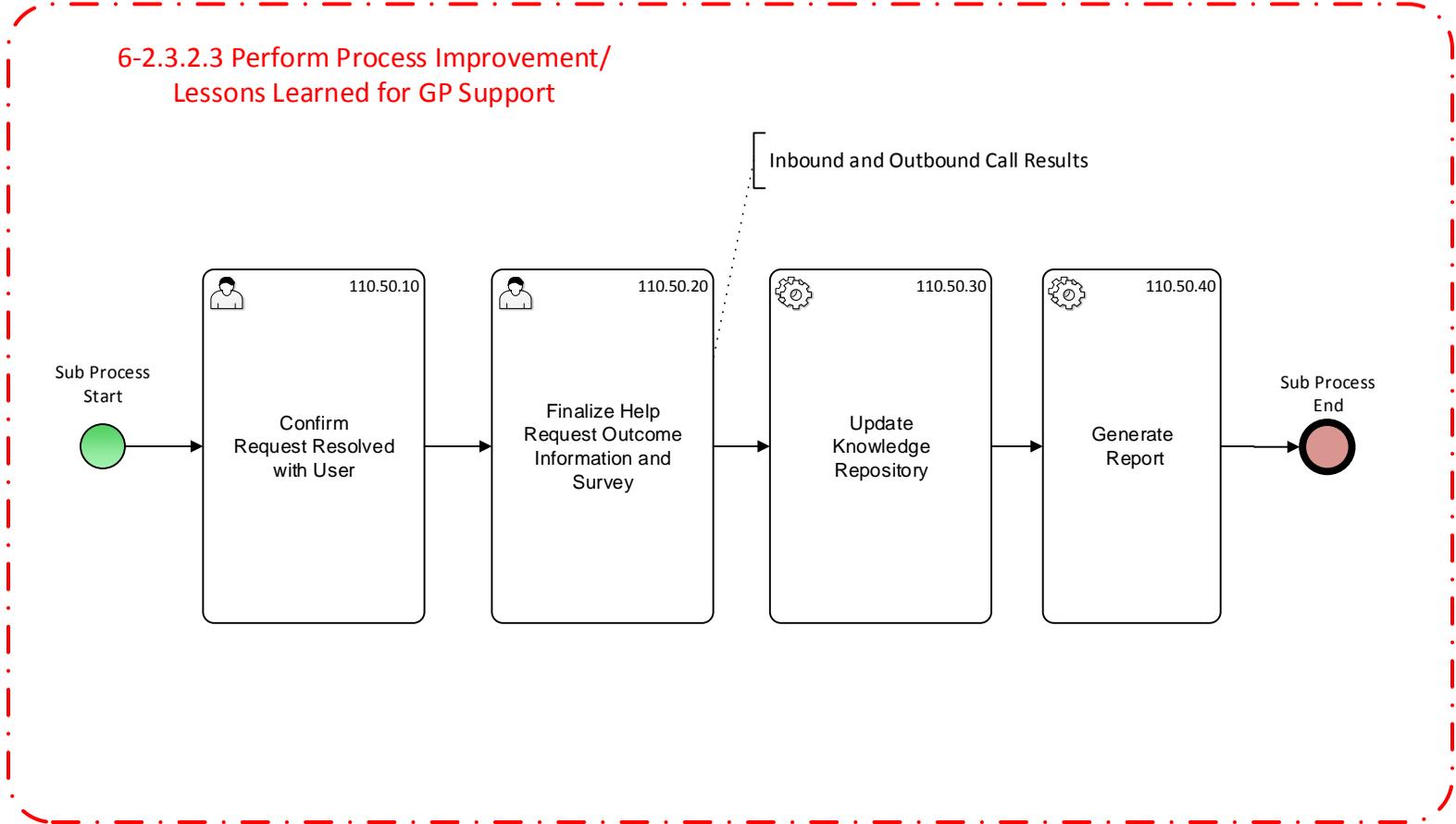
Purpose: To resolve, escalate and document GP Participants help requests

6-2.3.2.2 Perform Issue Resolution for GP Participants



110.50 Perform Process Improvements/Lessons Learned for GP Support

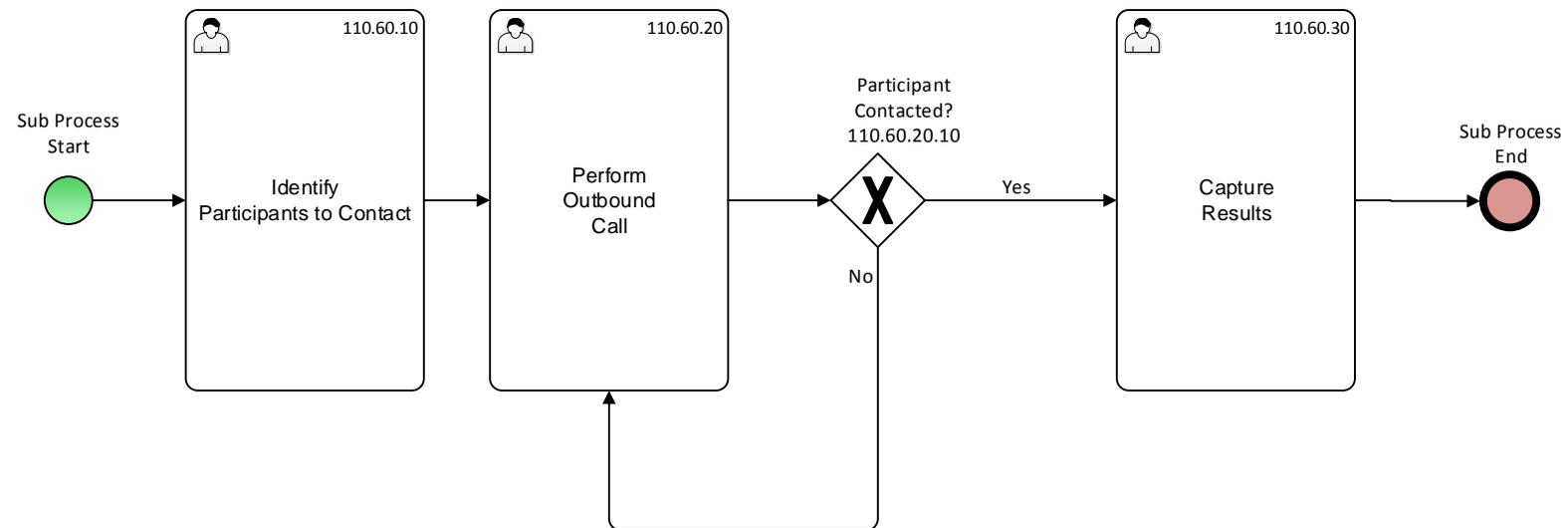
Purpose: To use information captured during the help request resolution to improve the existing knowledge base for each project



110.60 Conduct Outbound Calling for GP Participants

Purpose: To support outbound telephone calls based upon the needs of the program

6-2.3.2.4 Conduct Outbound Calling for GP Participants



120 Closeout Tabulation Geography Delineation

Purpose: To adequately document Lessons Learned and close-out 2020 Tabulation Geography activities.

