**Practitioner Sub-Team meeting**

**03/20/2025**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White – absent
  + Jim Thompson – absent
* Mentor Projects
  + Mark Twain – Meeting shortly to review data cleanup so one model can be completed; Jon Hammerly may be able to help
  + Twin Cities – going forward with sampling using spatial coverage sampling
  + Fernow – sampling this summer; presenting on Practitioner’s call in April
* Backlog
  + RSS QA checklist in progress
  + Will incorporate action items for FT meeting
* Standards
  + Part 648 RSS definition correction
* DSM Practicum
  + As follow-up to Intro to DSM, a cohort of a few projects would regularly meet as a group to move through a full DSM project step by step
  + Couple it with the tiered approach to RSSs
    - Climate/landform models for whole area/region
    - Drill down to order 2 level for project level
  + Regions could submit specific offices
  + Couple these projects with DSP/ES
  + Start rolling out by September 2026
  + Tiffany notes that we need to focus on how these projects are applied to inventory, delivery, relevance, and assistance. And how things directly benefit conservation on the ground. Offices will be spending a lot more time on TSS. Suggests we focus on top tier models to support inventory…and get buy-in from states to support DSM work.
* SSS Webinar to build state support for DSM
  + Everything that’s being done from SOLUS down to RSSs
  + Cory runs a SSS call
  + Showcase the products and how DSM can meet their priorities
    - E.g. what can SOLUS vs gNATSGO be used for?
  + Suzann will be point

**02/20/2025**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown - absent
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + Missouri – produced a final report, would like to continue working (broken up in three pieces) and create a sampling plan. Plan for more support after Soils2026.
  + Idaho – working on vectorizing and building ssurgo mapunits
  + Mark Twain – Dave is working on strategy to complete modeling on three georegions.
  + Twin Cities – contracted out to Nic Jelinksi and crew. Lost some staff to cuts. Waiting to find out about funding.
* gNATSGO
  + current product is 30m which limits utility of RSS
  + Kyle isn’t happy being in charge of producing gNATSGO
    - Alex will take point, can script it and make state rasters, maybe just one big geopackage for tabular
* Backlog etc.
  + For job aids…if language can be removed from standard, make a job aid. If it can’t, leave it in standards. Use references in standard to go to exhibits, user guides, etc.
  + National Instructions have a timeframe
  + Create an RSS manual/handbook/guide with all the guidance we’ve put together (workflow, ASR, other exhibits). It can be edited as needed and maintained outside of edirectives.
  + How to differentiate between what is considered a standard and needs to go in the handbook vs general guidance on how to do certain things
  + SSURGO definition work will happen after March.
* Kyle has suggested order 5 surveys will not have interpretations

**12/19/2024**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White – absent
  + Jim Thompson – absent
* Mentor Projects
  + Mark Twain – Dave is helping with the modeling; 3 separate geo-areas; first geo-area to be published in next Refresh. Working meeting planned for mid-January
  + Expecting a request for the Lake Champlain Basin
  + Joe requested Stephen’s assistance for sampling design for Twin Cities 2025
  + Would like to have capable people we notice in classes to help with some of these projects
* SSURGO Definition
  + Look at whatever’s there now and expand on it. There is a perception of SSURGO and the reality of it. Section 647 has SSURGO characteristics. Perhaps simply expand range of scales. Capture the fact that everything from detailed-general is contained within SSURGO.
* Extensive changes to website are coming, they’ve been through IR and are waiting on coms staff
* Practitioner’s Call
  + Nate and Greg for ES DSM details
  + Jon
  + Stewart Wilson
  + Sabine? Dynamic soil properties/deep learning & AI, or AK Soil Database?
  + Rio Puerco? Colby
  + Cover the training pipeline alongside FT happenings and future
* Need to continue discussion on capacity building

**11/21/2024**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + Mark Twain – Dave is stepping in since John is on detail; some preliminary modeling is underway. Field week Jan 13th
  + Idaho – wrapping up DMUs (raster Mus). Vectorization will be this winter.
* Website updates – under review/in progress
* 648 reorganization – plan is in place, Dave/Shawn/Suzann will work on it.
* SSS webinar idea – how should/could folks use RSS? How can folks get RSS done in their state? Intro to all raster products?
  + Demo the SDD tools
  + Separate webinar for SOLUS
  + Joe, Suzann, Alex will start working on this is 2nd quarter 2025

**10/17/2024**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin -
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + Request for reports went out; Carla and Matt have responded
  + Idaho – meeting scheduled for next week, they’ve been working on tabular
  + Mark Twain – working on covariates, done correlating point data for initial classes, there is a class imbalance issue, but working through some draft models.
  + Fernow – points being correlated, prepping for meeting with SSS
* Sub-team structure
  + Jess will be the sub-team lead
* Part 648 RES standards
  + Reorganization ideas for 648 as a whole:
    - Categorical vs Continuous sections, with sub-sections for each deliverable
    - Should products be in 638 instead of 648? (DSM is SM)
  + Dave will talk with Shawn before drafting a full structure redo
* How can we build in the uncertainty metrics for RSS/RES delivery?

**08/15/24**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown - absent
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White – absent
  + Jim Thompson –
* Mentor Projects
  + Missouri River floodplain project – John Hammerly was looking into expanding AOI, maybe moving forward next FY
  + Grand Rapids – no news
  + Lake Champlain Basin – moving forward slowly
  + Louisiana pretty much finished.
  + West Virginia – point data is nearly ready
* Florida – what’s the status?
* Raster interp engine – the way it’s currently designed it’s not good for continuous data; need much more progress than what Andrew has been able to do thus far (need to figure out what that is)

**07/18/24**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker – absent
  + Tiffany Allen – absent
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + MTNF – still cleaning up covariates and pedons; University of Missouri gave presentation of modeling sinkholes related to karst – will be looking to incorporate that layer into modeling or refinement
  + Alex will present his disaggregation model for LA tomorrow. Some significant overlap in class concepts, very low relief landscape
  + Lake Champlain Basin is similar (low relief, overlapping concepts). Useful covariates include openness, relative elevation.
  + Iowa – still struggling to get out of the pilot phase of the project, still digesting the DSM draft map from Stephen, eager to gather more data and expand the AOI. Detail does not appear to be feasible.
* We don’t have a backlog of mentoring requests
  + Could new project types make a difference in demand?
  + Advertise in the weekly for both projects and mentors
    - April? So the mentor can be on the ground level of the planning process
  + Suzann will ask for progress reports from current mentor projects in October and we’ll go from there
* Standards
  + New scale info came out in the latest NSSH refresh
  + Still working on SSURGO definition
* Raster products/RSS/RES/SOLUS/raster interp engine will be discussed at West and Northeast NCSS meetings. Andrew Brown has done some code updates to the interp engine.
  + Detail is hopefully forthcoming

**06/20/24**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Jay Skovlin -
  + Alex Stum – absent
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + MTNF – still cleaning up covariates and pedons
  + Iowa – 50 observations for small pilot area. Stephen shrunk legend to ~6 classes (reasonable number for 50 pedons to support). Question whether a SSS would sign off on those map unit concepts. Stephen needs to step back from doing ALL the modeling; trying to get a within-region detail.
  + Alex – wrapping up disaggregation modeling for LA project (not formal mentoring project). That office has another DSM project in San Antonio area and could benefit from official mentoring. Andy Riddle is advising.
* Discussion on making use of people who perform well in the DSM classes. Perhaps they could sign up as mentors.
  + Jess will check with Meredith about implementing something like this.
  + Or tie-in with formal mentoring program
* Practitioner’s Discussion topics
  + Field signatures
  + Creating DMUs for a RSS
  + Metadata/documentation – what, how, where do folks need to document?
* SE NCSS meeting
  + DSP has replaced DSM as the villain
  + Folks are excited about what DSM can do for people in the future

**05/16/24**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin -
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor Projects
  + MTNF – GTAC re-developed covariates but the terrain covs are in the wrong projection and the spectral covs were the wrong projection. Dave re-ran the spectral w/ Sentinel. Still working on pedon sorting. “field week” has been cancelled for now.
  + West Virginia –Jim L. took intro DSM and was successful
  + Idaho – Carla working on vectorizing
  + Iowa – Stephen is reviewing existing model; still looking into a detail to help with modeling (may need to be unofficial detail)
  + Grand Rapids – Matt Bromley is on DSP detail
* Covariate Scripts
  + Spectral (sentinel2) script in GEE – clipping function (in gtac library) was broken. So it’s been switched to masking function via google guidance.
  + Scripts are on github
* Generalize\_Pro toolbox
  + Alex working on a fix
* Center pivots
  + Use crop layer CSSA(??) to define cropped/uncropped
  + Target imagery from non-irrigation timeframe
  + In uncropped areas use spectral and terrain covs
  + In cropped areas use only terrain covs
  + If they show up in modeling domain but not within the actual project area maybe it’s okay
  + Dave will look into pedometrics talk about removing field signatures from spectral data
* Backlog
  + Stephen working on definition of SSURGO to encompass anything that’s in the SSURGO data model.

**04/18/24**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor Projects
  + MTNF – meshing different resolution DEMs has helped with artifacts
    - Requires Grass; Dave is working on writing up process
  + West Virginia – moving forward; Jim L. is taking Intro DSM in May
  + Idaho – Carla has validation figured out, models are good, is populating DMUs
    - One more field season, hoping to validate model performance in South
    - Brian is moving forward with his own models
      1. Will need to figure out harmonizing them
  + Iowa – Stephen is reviewing new data; looking into a detail to help (Lucas Scott?)
  + Grand Rapids – working on a new model
* Backlog
  + For modeling domains/aoi – job aid can include option for calculating aoi [4. Area of applicability of spatial prediction models • CAST (hannameyer.github.io)](https://hannameyer.github.io/CAST/articles/cast04-AOA-tutorial.html)

**03/21/24**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor Projects
  + Idaho – Carla has final predictions for entire area (north and south). Data was split up front leading to some classes not present in test dataset. Accuracy within model w/ cross validation is 57%
  + MTNF – met with GTAC on new covariate development. Concerns about number of points in some areas. Modeling on hold until the new covariates are delivered. Terrain covariates are going to need to be generated one by one. Tentative field week (Tiffany only) scheduled for May 6-10.
  + Stephen has been meeting with the Iowa folks, they’re looking for help correlating soil classes-landscapes.
  + 12-GRR project is moving forward with Greg Shmidt’s help
* Discussion on removing roads/artifacts from DEM.
* New Mentor request: West Virginia
  + Request includes raster soil survey and continuous properties – what does that mean to them?
  + Some data has been collected
  + Will suggest project scope be limited to RSS (class map)
  + Need clarification on timeline (is FY2024 a hard stop?)
  + Suzann will respond, Tiffany and Jess will help
* Backlog
  + Definition of SSURGO – currently SSURGO doesn’t include Order 4/5. Lindbo would like everything to go into SSURGO (thus generalizing the definition). SSURGO is not currently defined specifically in the handbook; descriptions of SSURGO are inconsistent. Alex and Stephen
  + Metadata best practices – needed in order to open up the definition of ssurgo. Need to include GDA-related things. Dave and Stephen
  + RSS process/defining modeling domains/combining adjacent RSS projects – Jess and Dave
* DSM Website
  + Needs updating and/or simplifying. It is separate from the DSM FT website at this time. We also have a landing page for RSS products and one for SOLUS is forthcoming. Will combine and repurpose content. Suzann

**02/15/24**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin -
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor Projects
  + MTNF – Tiffany visited and set up data buckets based on what data is usable.
    - Significant issues with terrain data that came from gtac – Tiffany & Suzann etc. will revisit with them and be clear on our needs.
  + Missouri River project is halting because Dan Polito transferred to 01
* Backlog – discuss in detail in March
* Training – very low enrollment for ArcSIE; will probably cancel this year

**01/18/24**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe – absent
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Jay Skovlin - absent
  + Alex Stum – absent
  + Dave White – absent
  + Jim Thompson –
* Mentor Projects
  + Joe – urban soil survey for twin cities; collaboration with UMN
    - Sample design considerations for field season in 2024
    - Curious about vectorization process and similar soils
    - Needs assistance developing a legend to increase model performance
  + MTNF
    - Project on track
    - DSM field week explored but maybe not happening
* Jim – two students who are pathways interns in a course; looking to incorporate DSM; Suz will share some Intro to DSM materials

**11/16/23**

Participants:

* + Joe Brennen –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor Projects
  + Champlain basin – need to have smaller DEM to work with – converting to integer would be problematic, so need to figure out resources (is GCP needed) and try working with 10m or 5m.
  + Atlantic – working on terrain and spectral derivatives; teasing out distance to different order streams and combining relative elevation derivatives with imagery. Data gathering to answer unsupervised classification questions.
  + Louisiana (unofficial) – working on getting Meg Ronaldo(?) up to speed on training to be able to hand the work off to her
  + Mark Twain – have cleaned up pedons in one area to be ready for modeling. Still having an issue moving points. Moving on to new area with very large point dataset.
* FL RSS issues and related needs
  + If an office that had a field week ended up so confused with the process, what other confusion exists out there?
  + Reconciling adjoining RSSs is not trivial
  + Should correlation and technical assistance for RSS be a function for the DSM FT instead of the regional office? That’s what’s been happening for urban soil survey (special projects team is starting to handle those things)
  + Could we have a better system for checking in with regions and making sure things are on track? Role of GIS specialists could be expanded…may need to require/encourage them to at least be trained
  + Simplify and expand the DSM workflow diagram into a one-pager, to go along with detailed job aid on every step
* Make a backlog of things/resources we want to work on

**10/19/23**

Participants:

* + Joe Brennen – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Jay Skovlin - absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor Projects
  + ID – Carla happy with models for both North and South, working on building MUs for RSS – generating RIC reports currently
    - Will find out if FY23 field sampling (based on Shannon Entropy) has been incorporated into model and whether that improves outcomes
  + Mark Twain – still organizing pedon data – early November deadline
    - Interested in hosting a field week
  + Champlain Basin – dem is being generated currently
  + Atlantic office – generating DEM derivatives (SAGA) to work on sampling plan, getting ready for modeling
    - Looking for a time series like NDVI change over time
* FL RSS issues
  + Suzann will talk with Drew etc. about not posting the new FL RSS, will need to re-export Big Cypress on its own
  + Adjacent soil surveys with different (but very similar) mapunits
    - Seems like a failure at the Regional office level
    - Need to maintain focus on creating Statewide RSS legend
  + NoData between RSS
    - Need to always model with a buffer
    - Use probability stacks to help blend them together?
    - Or Shannon entropy
  + Job aid for how to stitch together RSSs
    - Including how to patch together different RSS levels – hierarchical stacking?
  + Training
    - Add correlation content to Intro? Create a standalone short workshop?
    - Webinar that walks through the mechanics/process/technical details and mentions the correlation issues

**9/27/23**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor projects
  + ID – Carla is back to modeling and incorporating points from field season
  + Mark Twain
    - Pedon data is still being worked on, questions on location accuracy because some GPS points have been moved
  + Lake Champlain Basin – Alex has scripts for downloading/mosaicking LiDAR, will meet with 12-STJ in the coming weeks
  + Atlantic office - DSM for deposition/erosion area re-mapping – led by Dan Polito
  + Big Cypress is finished, Everglades is started
  + Fernow is in progress – Joel and
* RSS QA
  + Job aid and checklist
    - Alex will pull together info from Joe and Betsy
    - Tiffany will work on first draft of a checklist – week of Sept 25 will be reviewed and discussed by the team
    - Tiffany and Alex will have something ready for November meeting
* NSSH update over the winter
  + Add QA checklist as an exhibit
  + Add DSM milestones as an exhibit
* RSS pixel size – when to convert to 10m?
  + Get raster to publishing status, and process from there to make SSURGO?
  + How directly does the ssurgo product need to follow/represent the RSS?
  + Account for how many pixels change during nibble etc.
  + Jess will convert Cabeza Prieta to 10m and run a comparison

**8/17/23**

Participants:

* + Joe Brennen – absent
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe – absent
  + Stephen Roecker – absent
  + Tiffany Allen –
  + Alex Stum – absent
  + Dave White –
  + Jim Thompson –
* Mentor projects
  + ID crew still in the field
  + Mark Twain
    - Pedon data is being worked on
    - Ready to model in Sept
  + Ruston, LA office
    - Update project that Alex has been helping with
    - Disaggregation
    - New soil scientist – will encourage training
* RSS QA
  + Job aid and checklist
    - Alex will pull together info from Joe and Betsy
    - Tiffany will work on first draft of a checklist – week of Sept 25 will be reviewed and discussed by the team
    - Tiffany will have something ready for November meeting
* NSSH update over the winter
  + Add QA checklist as an exhibit
  + Discuss opportunity for adding other priority items to Part 648 at next meeting

**7/20/23**

Participants:

* + Joe Brennen – absent
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe
  + Stephen Roecker – absent
  + Tiffany Allen – absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor projects
  + Alex did field week in Louisiana. There’s only one staff member. Working on disaggregation project.
  + Idaho is all out in the field
  + Mark Twain – done with field data collection; organizing pedon data; covariates are ready
* Koya
  + Interested in having DSM people travel to Iraq for field data collection (and training)
* Date on refreshed RSS’s?
  + Propose FY for in-cycle data, add month/year for out-of-cycle data
* Checklist for RSS QA/update
  + Betsy Schug may have something started, Alex will check in
  + Tiffany has something (?)
  + Would be good to send something in the next couple weeks when the updated refresh instructions go out
  + Flowchart/checklist for the process at refresh time – whether it’s the first RSS in a state or adding one in to existing RSS, etc.

**5/18/23**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe
  + Stephen Roecker –
  + Tiffany Allen –
  + Alex Stum –
  + Dave White –
  + Jim Thompson –
* Mentor projects
  + Mark Twain – recent meeting with USFS, local and regional staff; lots of data, need to get it all in NASIS. New cLHS work happening.
  + Mentor progress reports have come in
    - 12-GRR – making progress, have been slowed down by staff turnover. Initial sampling plan was probably flawed so they’ve recently collected additional data.
    - Idaho
      1. Brian is working towards a raster product, Suzann will encourage continued engagement with mentors even though mentoring timeline has technically ended.
      2. Carla is working on the global model, e.g. global legend for filling in wilderness areas. Discussion on avoiding boundary issues between areas, local model strengths vs value of continuity of global model.
         1. Try to mask or constrain certain classes to appropriate areas?
         2. Weight results based on sampling densities in the various aoi’s, with feathering along the borders?
         3. Utilize training data from adjacent local models?
         4. Model generalized soil units within which different models perform appropriately?
         5. Model averaging has been considered but with such different model approaches it doesn’t seem like it would work – neither office has one model that has all the classes in it for each area
         6. Look at individual class probability for global model
* Spatial Analysis Workshop – how can we keep DSM link in that course without using too many DSM Training crew resources.
  + Some promising folks from BSS - Tiffany
  + Kyle Thomson in Bismarck?
  + Beyhan Amichev?
  + Joel Gebhard? Lucas Scott? Mike Sousa? Leah Carter?
  + Regional GIS Specialists?
    - Should RGIS positions be required to be on either DSS or SAW cadres by default?
* Fernow is booting up – Joel will be leading since Ann is going to HI

**4/20/23**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor projects
  + Mentor progress reports due
  + Mark Twain: in the field, moving forward
  + Idaho: Global model is finished, sampling plan using Shannon entropy as cost layer (to sample areas where uncertainty is high), USFS is doing cLHS. Moving on to Southern portion that’s not connected to global model.
    - Landform model not good enough in South – question is how to make it (and other models) better. Tree-based models don’t extrapolate well. Are soil-landscape relationships too different? Is feature space not represented well enough?
  + 12-GRR – still need to enter pedons
  + LCB – waiting on VT GIS for cohesive elevation dataset
* ES standards update – committee has met once, gone over standards process. Will decide to either add a section to 648 or add a new part to NSSH. Team is Shawn Salley, Stephanie Shoemaker, Nathan Roe, Suzann and Tiffany
* Part 648 is with the editors
* Archiving RSS data and models
  + Needs to be incorporated into standards for next update
  + How much do we archive? Just what’s necessary to recreate product or everything, covariates included?
  + Where do we archive? Box seems best for now.
  + Can we provide a common format for things like naming conventions, covariate decisions, etc.? Correlation documentation does most of that.

**3/21/23**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Alex Stum – absent
  + Dave White –
  + Jim Thompson –
* Mentor projects
  + Mark Twain: working on sampling scheme
  + Idaho: trying to use uncertainty (shannon’s entropy) to guide sampling; GTAC will be generating cLHS points using uncertainty to generate cost raster
  + 12-GRR – need to enter pedons
* Koya
  + Covered everything from basic soils knowledge to DSM project planning and workflows, including sampling and data reduction and developing covariates. Found a satellite dataset for 12m elevation -
* Pedometrics is scheduled for February 2024 in Las Cruces
* ES sub-team has identified that ES spatial products need to be QA’d and standards need to be developed. Do ES standards belong in part 648? Suzann, Joe, Tiffany will help with standards process (others welcome)
* Part 648 – has been reorganized and relevant comments addressed; some remaining minor questions were discussed.
  + Section on scale will be finalized and put into part B (Stephen and Dave)
  + Tiffany and Jess will do final read-through

**2/16/23**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Alex Stum –
  + Dave White – absent
  + Jim Thompson –
* Mentor projects
  + List updated
* Practitioner’s Call
  + Stephen will do March, SOLUS for April, Sarah in May
* Some R packages are going away and scripts in Intro DSM need to be updated. Reminder for people to audit Stats class to stay up to date on new tools.
* Part 648
  + Change raster levels to alpha instead of numeric
  + Add scale to table

**12/15/22**

Participants:

* + Joe Brennen –
  + Chad Ferguson –
  + Suzann Kienast-Brown -
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen –
  + Alex Stum – absent
  + Dave White –
  + Jim Thompson –
* Mentor projects
  + Brian Gardner working with some vectors
  + NACD – Dan Polito is working on draft legend; still in planning stages
  + Idaho – broader regional model progress: progress on a combined legend; Carla working on lithology, climate models so they’re available for whole area
* Part 648
  + Comments are in – deciding which comments should be implemented within standards at this point (or at all). Big picture themes vs really specific comments.
    - Will document responses regardless of if edits are made

**11/17/22**

Participants:

* + Joe Brennen –
  + Chad Ferguson –
  + Suzann Kienast-Brown
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Alex Stum –
  + Dave White – absent
  + Jim Thompson –
* Mentor projects
  + NACD project
    - Scope of the project is(was) very small; SRSS is skeptical of DSM. Need better project plan to support larger extent, DSM-specific sampling etc. Perhaps Joe can participate and share experience.
    - Next step: inventory of soils that occur in expanded project area
  + Grand Rapids – Stephen will follow up
  + MTNF – John Hammerly will be doing DSM work; extent is being refined
* Practitioner’s Call
  + Mentor projects are expected to participate
  + France presentations, other presentations that our group has done
  + Dylan – suggests Peter Engelstadt from USGS – invasive species distribution modeling
  + Alex – Little Washita – March
  + January and March may need to be moved, February is France meeting
* Part 648 – comments are due by Nov. 30th
* Training
  + December session of Intro DSM is cancelled
  + Meredith has requested a super basic Intro to DSM webinar type training
* Data Delivery – raster soil survey tabular data via soil data access?

**10/22/22**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe –
  + Stephen Roecker –
  + Tiffany Allen – absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* Mentor projects
  + NACD project
    - Scope – size of area, how representative
  + Champlain Basin – Lucy and Paul will be working on it; Jess will mentor
  + Grand Rapids – wrapping up from field season
  + MTNF – looking for DSM help
* Part 648 – moving forward
* Quarterly meeting – beginning of Nov
* Training schedule – ideas for mentors
  + Carla (intro to DSM)
  + Brianna Wagner (ND) – other people working on her projects? (intro to DSM)
  + Greg Schmidt ?
  + Tyson Hart
  + Dennon ? field notes webinar
  + Paul Gadeki
  + Sharon Parrone
  + Martin Figueroa (intro to DSM)
  + Beyhan Amichev

**9/28/22**

Participants:

* + Joe Brennen –
  + Chad Ferguson – absent
  + Suzann Kienast-Brown
  + Jessica Philippe – absent
  + Stephen Roecker –
  + Betsy Schug – absent
  + Tiffany Allen – absent
  + Alex Stum –
  + Dave White –
  + Jim Thompson – absent
* ID field week
* Mentoring projects – Stephen and Suzann will help with NACD project and reach out to office for a meeting to answer some general questions
* Training
  + Reviewed schedule
  + Koya university training
* Part 648
* RSS checklists – next time

**3/15/22**

Participants:

1. Joe Brennen –
2. Chad Ferguson – absent
3. Suzann Kienast-Brown
4. Jessica Philippe – absent
5. Chance Robinson – absent
6. Stephen Roecker – absent
7. Betsy Schug – absent
8. Tiffany Allen –
9. Alex Stum –
10. Dave White –
11. Jim Thompson – absent

* Mentoring projects
* Training
  + Terrain workshop
  + GEE
  + Intro to DSM – mentors (6 or more needed)
* RSS as part of FY22 refresh – checklist for RSS certification at Regional Office
  + Tiffany will share document to edit
  + Checklists
    - QC checklist (SSS, SSO, cooperator)
    - QA spatial checklist (GIS)
    - QA tabular checklist (SDQS)
  + Need tools for exporting – set up a meeting - Suz
    - Chad, Adolfo, Kyle
    - Joe, Tiffany, Jess, Alex
    - Export NASIS data to data warehouse
* Part 648 updates
  + Accuracy metrics
  + Uncertainty layers

**2/15/22**

Participants:

1. Joe Brennen –
2. Chad Ferguson –
3. Suzann Kienast-Brown
4. Jessica Philippe –
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug – absent
8. Tiffany Allen –
9. Alex Stum –
10. Dave White – absent
11. Jim Thompson – absent

* Mentoring projects
* Part 648 updates – need to figure out file permissions for the FT (Suz)
* Raster Soil Survey Project in NASIS
  + Will incorporate standard naming convention into upcoming edits of Part 648
  + Higher level NASIS changes will wait – check in with Kyle near the end of the FY

**1/18/22**

Participants:

1. Joe Brennen –
2. Chad Ferguson –
3. Suzann Kienast-Brown
4. Jessica Philippe –
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug –
8. Tiffany Allen – absent
9. Alex Stum –
10. Dave White –
11. Jim Thompson – absent

* Mentoring projects
* Validation – how to design independent validation – number of points required?
  + Add more info into RSS levels regarding independent validation
* Part 648
  + Updates
    - Projection
    - Snapping grid
    - RSS levels
    - RaSS to RSS
    - Metadata example review – maybe need standard language w/reference to the DSM webpage
      * Stephen/Chad can help
    - DSS project type – is this added to MLRA project type or is it unique?
    - Naming convention – make consistent with gSSURGO
      * All states and territories currently have RSS legends with 2-digit state code, no 000
      * Add year to gdb name
      * Discuss naming convention with Adolfo
        + Add state abbreviation to feature classes in gdb for gSSURGO (and in RSS)
  + Small group to start edits – Suz/Jess
  + Put a document in Teams for editing and with the list of updates

**11/17/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson –
3. Suzann Kienast-Brown
4. Jessica Philippe – absent
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug –
8. Tiffany Allen –
9. Alex Stum – absent
10. Dave White –
11. Jim Thompson – absent

* Mentoring projects
  + Progress reports in Jan
* Part 648
  + Updates
    - Projection
    - Snapping grid
    - RSS levels
    - RaSS to RSS
    - Metadata example review – maybe need standard language w/reference to the DSM webpage
    - DSS project type – is this added to MLRA project type or is it unique?
    - Naming convention – make consistent with gSSURGO (check with Kyle on gNATSGO)
      * All states and territories currently have RSS legends with 2-digit state code, no 000
      * Add year to gdb name
  + Small group to start edits – Suz/Jess
* Correlation of SSURGO and RSS map units
  + Should they be the same or not?
    - No consensus yet
    - Needs to be consistent and user friendly
  + Map unit type in map unit table
  + MLRA map unit is current option; should we have a new Raster map unit type?
  + Standards would be updated
  + Discussion for another meeting
* Dec practitioner call
  + Joe will check with Bradley Miller at IA state

**10/27/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson –
3. Suzann Kienast-Brown
4. Jessica Philippe –
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug –
8. Tiffany Allen –
9. Alex Stum –
10. Dave White –
11. Jim Thompson – absent

* Maine field work
  + Provide Colby’s ppt – Suz
* Project updates
  + Most are done with field work and in office entering pedon data
* Soils2026 projects
  + Summary of project classes and potential for DSM mentors
  + Project details deadline in Nov
* Springfield SSO mentor request (Tiffany and Suz)
  + Need to define
    - Project extent
    - Roles
    - Project objectives
  + Start with a limited scope of a specific catena, parent material, etc. to develop process then apply to other areas
  + Compartmentalize mentoring
  + Involve GTAC? – Suz reach out to Rob – done
  + Set up initial meeting (SSO) after Statement of Commitment is complete
* RSS
  + Update on RSS coordinator
  + RSS and ASR – timing and requirements
  + RSS map units/tabular data vs SSURGO map units/tabular data
    - Conversations w/Kyle
    - Guidance on population based on project needs
  + Getting RSS pushed to SDA – needs discussion
  + Chad will look at options to automate building of RSS gdb
  + Joe is working on checklist
* Update of current RSS datasets & anticipated new datasets (follow-up re: email from Kyle)
  + Ask Kyle to send an email with specific instructions
    - TN
    - NC
    - Jan 1 – ND, SD, MN, WI
    - Tabular refresh for MN, ND
    - Tabular refresh for VT
* Google update

**9/21/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson –
3. Suzann Kienast-Brown
4. Jessica Philippe – absent
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug – absent
8. Tiffany Smith – absent
9. Alex Stum –
10. Dave White
11. Jim Thompson

* Project updates
* ArcSIE on software center
* RSS – certification and publication process
  + Currently
    - VT, ND, MN
  + Checklist – Joe will put something together for all to review
    - Add validation checks
  + Annual refresh – what is the timing?
    - Same as SSURGO refresh if desire to incorporate into new FY gNATSGO
  + Coordinator – Suz will discuss with Drew
* DSS products
  + RSS will be handled as outlined in Part 648 for now
  + Add to NSSH as a project type
  + Check on NASIS sub-type options – is DSS an option?
  + Does RSS trump gSSURGO in gNATSGO?
    - For now, yes but conservation activities are based on SSURGO
    - Follow up on SDA and RSS/gNATSGO
* Soils 2026
  + GEE scripts for covariate development
    - Sentinel and/or Landsat derivatives
    - Handful of terrain derivatives
    - Accompanying Python script to mosaic/snap/reproject
      * Alex has a script to build from – will share
  + R or Python scripts for additional terrain derivatives – people will share
  + Modeling areas with sparse access/data
    - STATSGO disaggregation

**7/20/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson – absent
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson – absent
6. Stephen Roecker –
7. Betsy Schug – absent
8. Tiffany Smith –
9. Alex Stum –
10. Dave White

* Project updates
* Part 648 – meeting on Wed 7/21
* GTAC support for projects in general and specifically soils2026 projects

**6/16/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker –
7. Betsy Schug –
8. Tiffany Smith –
9. Alex Stum –
10. Dave White

* Part 648
  + Projection/snapping grid – use 10m/30m MU key grid
    - Will bring up on SBS meeting to ensure consistency with gSSURGO/gNATSGO
    - Provide links
      * Part 648
      * AGOL
      * Job aids
      * gSSURGO/gNATSGO webpage
* RSS Levels
  + **This group approved the Levels document**
  + Chad will figure out what we need to do to update Part 648 ASAP
* GTAC
  + Project support initiative
  + Meet with Rob Vaughan to discuss possibility
* Google
  + One step closer to contract
* Training material QA/QC
  + Suz will send out link

**5/18/21**

Participants:

1. Joe Brennen –
2. Chad Ferguson
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker –
7. Betsy Schug –
8. Tiffany Smith –
9. Alex Stum – absent
10. Dave White

* Projection 6350 is universally read by software packages
* Raster Soil Survey levels (Dave, Joe)
* Soils2026 update and connection to RSS levels (Tiffany, Joe)

Action items

1. Chad will look into updating NSSH Part 648
   1. Standard projection
   2. Snapping grid
   3. RSS levels
2. RSS levels doc – everyone review and provide comments in Teams document before next meeting

Back burner

1. NASIS Milestones
   1. Detailed descriptions need to be updated based on new sequence (Joe/Chance)
   2. Assign lead for each milestone job aid (Dave)
2. Map unit kind (Dave/Joe)

**4/20/21**

Participants:

1. Joe Brennen – absent
2. Chad Ferguson
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker – absent
7. Betsy Schug –
8. Tiffany Smith – absent
9. Alex Stum – absent
10. Dave White

* WSS description of how soil surveys are made – include raster soil surveys
  + Refer to RSS page and WI soil page
* Standards
  + 6350 projection update
  + Snapping grid – instead of NLCD
    - gSSURGO (10m product), gNATSGO (30m product) in standards
    - gSSURGO binary grid for snapping – Chad will create
  + Chad will look at updating Part 648
* xTerrain tools
  + Jon Bathgate may be maintaining toolset
  + Chad will investigate
* Map unit kind/RSS levels
  + Map unit definitions
  + Uncertainty measures
  + Dave/Joe will circulate for feedback soon
  + This will become part of the policy completion of soils2026 will rely on
* Correlation guidance/legend creation and management for RSS is needed – we will put this on the priority list
  + Raster Soil Survey area type exists in NASIS
  + Legends are managed by state as indicated in Part 648
  + So maybe a lot of it is already there?

Action items

1. Chad will look into updating NSSH Part 648
   1. Standard projection
   2. Snapping grid
   3. RSS levels
2. NASIS Milestones
   1. Detailed descriptions need to be updated based on new sequence (Joe/Chance)
   2. Assign lead for each milestone job aid (Dave)
3. Finalize draft of map unit kind description/RSS levels (Joe/Dave)
4. Follow up with Wayne re: WSS (Suz)

**3/16/21**

Participants:

1. Joe Brennen
2. Chad Ferguson
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker – absent
7. Betsy Schug
8. Tiffany Smith
9. Alex Stum - absent
10. Dave White

* NASIS project subtypes
* Standards
  + 6350 projection update
  + Snapping grid – instead of NLCD
    - gSSURGO (10m product), gNATSGO (30m product) in standards
  + Chad will look at updating Part 648 – Suz will follow up
* Raster Mastery
  + Used GovDelivery and html
  + Github repo with R code from issues
  + Workflow
    - Develop content
    - Provide to Suzann for english edit
    - Pass to Dave for publication on GovDelivery
* NASIS milestones
  + Region 9 NASIS site has template for new projects
  + Standard national templates for all project types
  + Milestones available in NASIS
  + Detailed descriptions need to be updated based on new sequence (Joe/Chance)
* Github job aids repo/sharepoint (Dave)
  + Scripts
  + Milestone writeups
  + Keep source material docs/ppt on DSM FT sharepoint
* Milestone job aids – assign leads for each (Dave)
  + Review from practitioner sub-team
* Map unit kind – Dave and Joe will finalize a draft and circulate for review
  + Verbiage of relating a pixel to a map unit kind (represented as levels)
  + Levels linked to soil mapping order
  + Goal to get raster map unit kind and standard uncertainty info into NSSH then SSM
    - Need a proposal
* Soil Correlation
  + Working with Shawn and instructor cadre to update materials
* Google Cloud Services update – contract in place as soon as budget allocation comes through

Action items

1. Chad will look into updating NSSH Part 648 – standard projection and grid snapping guidance (Suz will follow up)
2. NASIS Milestones
   1. Detailed descriptions need to be updated based on new sequence (Joe/Chance)
   2. Assign lead for each milestone job aid (Dave)
3. Finalize draft of map unit kind description (Joe/Dave)

**2/16/21**

Participants:

1. Joe Brennen
2. Chad Ferguson
3. Suzann Kienast-Brown - absent
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker - absent
7. Betsy Schug
8. Tiffany Smith – absent
9. Alex Stum - absent
10. Dave White

* NASIS milestones
  + Region 9 NASIS site has template for new projects
  + Detailed descriptions need to be updated based on new sequence (Joe/Chance)
* Github job aids repo/sharepoint (Dave)
  + Scripts
  + Milestone writeups
  + Keep source material docs/ppt on DSM FT sharepoint
* Milestone job aids – assign leads for each (Dave)
  + Review from practitioner sub-team
* Map unit kind – Dave and Joe will finalize a draft and circulate for review
  + Verbiage of relating a pixel to a map unit kind (represented as levels)
  + Levels linked to soil mapping order
* Training delivery schedule for Soil Correlation
  + Proposal to TFT meeting (2/22/21) to update existing Correlation course with DSM/RSS principals in existing structure, plus a module (Joe and Suz)
* Goal to get raster map unit kind and standard uncertainty info into NSSH then SSM
  + Need a proposal
* Spreadsheet for practitioner call, raster mastery, weekly assignments (Jess and Suz) – Complete
* Google Earth Engine
  + Still need training
  + Interest in creating standardized scripts for SPSD
  + need script that works with Sentinel Data – ask GTAC (Chance/others)

**12/15/20**

Participants:

1. Joe Brennen
2. Chad Ferguson
3. Suzann Kienast-Brown
4. Jessica Philippe
5. Chance Robinson
6. Stephen Roecker
7. Betsy Schug
8. Tiffany Smith – absent
9. Alex Stum
10. Dave White

* NASIS milestones
  + Joe provide more detailed descriptions to sub-team
  + Suz send edits to Wayne
* Github job aids repo/sharepoint (Dave)
  + Scripts
  + Milestone writeups
  + Keep source material docs/ppt on DSM FT sharepoint
* Milestone job aids – assign leads for each (Dave)
  + Review from practitioner sub-team
* Map unit kind – Dave and Joe will finalize a draft and circulate for review
  + Verbiage of relating a pixel to a map unit kind (represented as levels)
  + Levels linked to soil mapping order
* Training delivery schedule for Soil Correlation (Suz will talk to Shawn after 12/17)
* Goal to get raster map unit kind and standard uncertainty info into NSSH then SSM
* Spreadsheet for practitioner call, raster mastery, weekly assignments (Jess and Suz)