**General Style Notes**

Things to keep in mind for all or most deliverables.

* Use the correct filename: “YearTerm\_NODE\_ProjectShortTitle\_DeliverableType\_Draft(FD/RD)”
* 2021Spring\_ARC\_PacificNorthwestHealthAQ\_ProjectSummary\_FD
* Use the correct formal node name for each deliverable
* (e.g. Alabama – Marshall, Arizona –  Tempe, California – Ames, California – JPL, Colorado – Fort Collins, Georgia – Athens, Idaho – Pocatello, Maryland – Goddard, Massachusetts – Boston, North Carolina – NCEI, or Virginia – Langley).
* Note that this dash in an “en dash,” i.e., a longer dash than the one located on your keyboard.
* Deliverables must be written in **Microsoft Word or PowerPoint**. Use your Microsoft Office 365 accounts!
* The first letter of each word in the title, subtitle, and VPS title are capitalized (APA title case).
* The short title should be a combination of the study area and application area. If the project is a continuation, ‘II’ or ‘III’ should also be included.
* **Do not double space after periods!!**
* Semicolons should be used to separate two independent clauses (meaning they are both complete thoughts and the semicolon could be replaced with a period).
* Use “i.e.” (meaning “that is”) to give further explanation of something. Use “e.g.” (meaning “for example”) to give a few examples, not a complete list.
* Consistency is key!
* Capitalization – for example, in the Earth observations section of the Project Summary, if one parameter is capitalized, the rest should capitalized
* Pronouns – “we”, “the/our team”, or “the project team”are good options
* When writing Earth observations, compare satellite and sensor formats. For example, if you write “Landsat 8 OLI” (satellite & sensor), don’t just write “Sentinel-2” (satellite).

**Insert Short Title Here (Example: Intermountain West Health & Air Quality II)**

*Insert Subtitle Here (Example: Utilizing NASA Earth Observations to Enhance Wetland Monitoring and Management in Florida)*

**Project Team**

***Project Team:***

Name 1 (Project Lead)

Name 2

Name 3

Name 4

***Advisors & Mentors:***

Name 1 (Affiliation)

Name 2 (Affiliation)

Name 3 (Affiliation)

***Past or Other Contributors:***

Name 1

Name 2

*\* If the project is a continuation, you must list ALL previous team members from past terms (who are not current team members). Do not denote who was the previous project lead.\**

***Team POC:*** Name, Email

***Software Release POC:*** Name, Email

***Partner POC:*** Name, Email

**Project Overview**

***Project Synopsis:***

This short overview provides a brief and catchy synopsis of the project and its objectives for media sources. Keep the reader in mind and make it interesting. (1 to 3 sentences; 80 to 100 words)

***Abstract:***

Insert here (150 to 250 words, one paragraph). Best Practices:

1. The abstract should be fully contained and give the reader a good grasp of the project.
2. While there is a maximum word limit, if you can say it with fewer words, do so.
3. State the most important information first.
4. Write in past tense.
5. Write in active voice and avoid passive words like “might” or “could” – use powerful language.
6. Spell out all acronyms except NASA.
7. Don’t include citations.
8. Don’t define terms.
9. Read other projects’ abstracts for inspiration.
10. Any major restrictions or limitations on results (if results are included) should be stated.
11. Reread the abstract. Did it answer: who, what, where, when, and why? If it didn’t, then revise it!
12. Don’t forget to add results for the final draft – feel free to include a placeholder sentence in your rough draft!

***Key Terms:***

Insert 2 to 8 keywords here that relate to your project. Example: remote sensing, MODIS, Floating Algal Index, biodiversity hotspot, MaxEnt

***National Application Area(s) Addressed:*** Application Area 1, App Area 2, etc.

***Study Location:*** Study Location and State Postal Acronym(s), or Country (if project is international)

***Study Period:*** MonthYear to Month Year, Forecasting to Year

If Seasonal: Year to Year (Month to Month), Forecasting to Year

***Community Concerns:***

* Explain the “why” behind this project. **Use complete sentences with periods.**
* Why is this an important topic? What are the environmental issues involved? Why is this work important to the community?
* Etc.

***Project Objectives:***

* Write project objectives succinctly in bullets and **do not use complete sentences with periods**
* Start each objective with a strong action verb (ex: Analyze, Calculate, Formulate, Produce)
* Should match the ones featured in your Presentation and Poster deliverables

***Previous Term(s):***

Year Term (Node Acronym) – Project Short Title

**Partner Overview**

***Partner Organization(s):***

|  |  |  |  |
| --- | --- | --- | --- |
| **Organization** | **POC (Name, Position/Title)** | **Partner Type** | **Boundary Org?** |
| **Org 1** | Dr. Joe Smith, GIS Specialist | End User | Yes |
| **Org 2** | Dr. Jane Smith, Research Scientist | Collaborator | No |

***Decision-Making Practices & Policies:***

In a well-explained nutshell, describe the current decision-making practices that your project end user employs in relation to the environmental issue at hand. Are they conducting costly field observations or some outdated method to manage something that remote sensing and NASA Earth observations could make easier for them? Also, what policies are in play: are there any federal or state laws that oversee the management of a certain area, land cover type, or issue? This **should not** include any information about what your project will contribute or how it will impact these practices and policies. This section should solely be focused on the partners’ decision-making process (one paragraph).

**Earth Observations & End Products Overview**

***Earth Observations:***

|  |  |  |
| --- | --- | --- |
| **Platform & Sensor** | **Parameter(s)** | **Use** |
| **EO-1 Hyperion** | Normalized Difference Vegetation Index (NDVI) | Write 1 to 2 sentences describing how this dataset was used. |
| **Terra MODIS** | Chlorophyll-a | x |
| **Aqua MODIS** | Chlorophyll-a | x |

***Ancillary Datasets:***

* Creator Organization & Dataset Name – Use
* Example: NOAA Great Lakes Observing System Great Lakes Coastal Forecasting System – Surface water current data for modeling *Cladophora* transport

***Modeling:***

* Full model name (POC: Name, affiliation) – Use
* Example: Earth Engine Evapotranspiration Flux (EEFlux) Model (POC: Phil Blankenau, University of Nebraska) – ET values for model comparison

***Software & Scripting:***

* Software package – Use
* Example: ERDAS IMAGINE – Landsat-derived land classification

***End Product(s):***

|  |  |  |  |
| --- | --- | --- | --- |
| **End Product** | **Earth Observations Used** | **Partner Benefit & Use** | **Software Release Category** |
| **End Product 1**  **(Example: Landscape Fragmentation Map; written in title case)** | List what EO data were used to derive your product. Use acronyms.  Example: Landsat 8 OLI | Write a brief description of how the end product will or can **improve a specific decision-making process or be used by** the partner (1 to 2 sentences). | Options:  N/A  I  II  III  IV  V |
| **End Product 2** |  |  |  |

***Product Benefit to End User:***

Provide a concise paragraph that demonstrates the utility of your project and how it will benefit the end user involved. How can they use your methodology to enhance a decision, and how does that help them? Write about how your project could impact the practices and policies listed above(future tense; one paragraph).

***Project Continuation Plan:***

If your project is continuing to another term after this one, speak to what is being handed off now and what additional materials will be handed off in future terms. A first term should never forgo a handoff altogether; instead, the team can provide preliminary products. This section should be 100 words max. **Remove this entire section for one term projects or projects that will not continue to another term.**

**References**

Using APA format, list out any relevant content or websites that support your Project Summary. However, please note that citations **should not** be included in the text within the body of the document. **Only cite sources used to complete this summary, do not include a full reference list** (A range of 1 to 5 citations is enough; save the full list for your Technical Paper)!

**Project Summary Checklist**

The Project Summary is your go-to document for project information. The content in this document is compiled for reporting to NASA HQ and is often shared with future teams, partners, and the Capacity Building and Applied Sciences Programs. You can use this to complete your project page on DEVELOPedia.

###### ***General Writing & Formatting***

* The formatting for each section should match the template:
  + All text is Garamond, 11-point font.
  + Science advisor affiliations are in parentheses.
  + Bullets are used for the Community Concerns, Project Objectives, Ancillary Datasets, Modeling, and Software & Scripting sections.
* Write in past tense (except for the Product Benefit to End User and the Project Continuation Plan sections – write those in the future tense). Use active voice as much as possible. Here are examples in the past passive and past active voice:
  + Past passive: Three 2-L samples were taken at a depth of between 0.1 and 0.5 m at the down-wind end of each wetland.
  + Past active: Each of the three groups took 2-L samples at a depth of between 0.1 and 0.5 m at the down-wind end of each wetland.
  + [www.englishpractice.com/improve/active-passive-voice-simple-tense/](http://www.englishpractice.com/improve/active-passive-voice-simple-tense/)
* *Each paragraph should have at least three sentences.*
* Spell out all acronyms the first time they are used in the text, even if they have also been spelled out in the abstract.
* Change “(s)” for any given section
  + For example, “National Application Areas Addressed” on the template should read either:
    - National Application Area Addressed: Application Area 1
    - National Application Areas Addressed: Application Area 1, Application Area 2

## **Project Overview**

###### ***Header***

* Please note that there is text in the cover page Header which needs to be updated
  + If you’re using the Microsoft Word Online version the Header text may not be visible to you. Select "Header" in the upper right-hand corner and edit "Insert DEVELOP Node Name (Ex. Virginia – Langley)" appropriately.

###### ***Project Synopsis***

* This short overview provides a **brief** and **catchy** synopsis of the project and its objectives for media sources. Avoid going into great detail like listing out your Earth observations.
* **Word count limit**: 1 to 3 sentences; 80 to 100 words

###### ***Abstract***

While not a separate deliverable, the abstract appears in the Project Summary, Tech Paper, Poster, and on the DEVELOP website. It is a short summary of your project that introduces the problem, partners, NASA EO, results, and significance. The abstract “lives” in the project summary until the final draft.

* **Word count limit:** 150-250 words and only one paragraph.
* Write in past tense and avoid passive voice.
* Acronyms should be spelled out the first time they are used in the abstract, and then also the first time they are used in the text.
* There should be no citations in the abstract.
* Any changes made to the abstract should be reflected in your final draft in the Project Summary.
  + If you need to make changes to your abstract *after* you’ve submitted the Project Summary FD, send any updated versions to the Project Coordination team and ensure that the updated version is used on any subsequent deliverables and on your project page on DEVELOPedia.
* The Abstract **must** include the following:
  + What the problem was
  + Who the decision makers are and what the decision being made is
  + The partner organization(s) with whom you partnered
  + What NASA Earth observations were involved
  + What you did in response to the problem
  + What the benefits or outcomes are/will be
  + What your results were
* Abstract best practices:
  + The abstract should be fully contained and give the reader a good grasp of the project.
  + While there is a maximum word limit, say it with fewer words if able.
  + State the most important information first.
  + Write in active voice and avoid passive words like “might” or “could” – use powerful language.
  + Spell out all acronyms except NASA.
  + Do not define terms.
  + Read other projects’ abstracts for inspiration.
  + Any major restrictions or limitations on results (if results are included) should be stated.
  + Reread the abstract. Did it answer: **who, what, when, where,** and **why?** If it didn’t, revise it!
  + Don’t forget to add results for the final draft – feel free to include a placeholder sentence in your rough draft.

###### ***Key Terms***

* This is a list of key words and terms that can be used to search for your project.
* When choosing keywords, do not include words already listed in your project title.
* Pick terms that describe your project well and are specific to your project. Try to avoid simply listing the Earth observations you used.
* Only capitalize any acronyms or proper nouns. Do not capitalize the first term if it is not a proper noun.
* **Word count limit**: 2 to 8 key terms

###### ***Study Location and Study Period***

* List each state in the study area section with its postal acronym
  + Ex: Western shore of Lake Michigan bordering WI, IL, and IN
* If working on a seasonal project, include study period months as well as years.

###### ***Community Concerns***

* All bullet points should be in complete sentences and have periods.
* Relate the problem back to the community (or communities). Avoid general statements or describing the problem itself – be specific about how the issue impacts the community.

###### ***Project Objectives***

* Objectives should not be in complete sentences or have periods.
* These should match the objectives you put in your Presentation and Poster (optional) deliverables.
* Be succinct and start each objective with a strong action verb.

## **Partner Overview**

###### ***Partner Organization Table***

* Follow proper partner nomenclature and include the full partner org name with any larger/umbrella orgs first.
  + Ex: National Park Service (umbrella organization), Glen Canyon National Recreation Area (specific office being partnered with)
* If there is more than one point of contact (POC) for an organization, list them in the same box separated by semi-colon.
* List end users first. Each partner is **either** an end user **or** a collaborator, not both.
* Boundary organizations are also listed as either a collaborator or an end user, and the notation for boundary organization is at the end of the listing.
* If you add or remove any partners during the term, **make sure to notify the Project Coordination team!**

###### ***Decision-Making Practices & Policies***

* **Word count limit**: one paragraph
* Describe the decision-making practices employed by the end user(s) and/or any policies in play that oversee the management of a certain area, land cover type, or issue?
* Solely focus on the partners’ current decision-making process, not what your project willcontribute.

## **Earth Observation & End Products Overview**

###### ***Earth Observation Table***

* List each instrument on an individual line, even if the parameter and use are the same.
  + Example: Landsat 5 TM, Landsat 7 ETM+, and Landsat 8 OLI should all be in separate rows.
* Use past tense in the Use column.
* List the platform then the sensor, not just the sensor (e.g. ISS ECOSTRESS, not just ECOSTRESS)

###### ***Ancillary Datasets***

* List any non-satellite or airborne datasets used. Do not list satellite datasets or other Earth observations in this section.
* List the creator organization first, then the name of the dataset, then what you used it for.

###### ***Modeling***

* The point of contact should be someone in contact with the team who has experience running and troubleshooting the model. The POC does not need to be someone affiliated with the group that produced the model.
* If you did not use modeling in your project, delete this section.

###### ***Software & Scripting***

* List any software or scripts you used in your project. For software or languages with a version number, include that as well. (e.g. “Esri ArcMap 10.5 – used for map creation and data processing”)

###### ***End Product(s) Table***

* This table is different from the one listed in the project proposal!**Do not** copy and paste from the proposal.
* Write in future tense for the Partner Benefit & Use column.
* Double-check the Software Release categories with your Fellow (if applicable)

###### ***Product Benefit to End User***

* Describe how the results and end products of this project will benefit the end user’s decision-making process. What are the short-term considerations of this work for your partner? Long term?
* Write in future tense.
* **Word count limit**: one paragraph

###### ***Project Continuation Plan***

* Remove this entire section for one term projects or projects that will not continue to another term.
* Describe what is being handed off after the conclusion of your term and how the next term can build off of your team’s work.

## **References**

* Use APA format only for your citations.
* List any sources that helped you write your Project Summary. Do not cite sources in-text.
* Use 1 to 5 citations – save the full list for your tech paper!

## **Checklist**

* Delete checklist and general style notes (cover page) before FD submission.