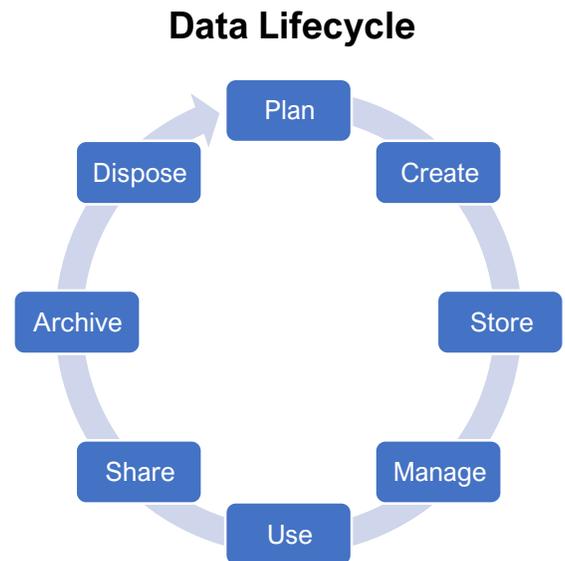


## ROADS Data Management Planning Resource

The Florida Department of Transportation's vision for **data governance** is "a foundation of reliable and consistent data that helps drive business, is well understood by internal and external stakeholders, and is collected, managed, and clearly and openly communicated."

The ROADS Data Management Planning (DMP) Resource, managed by the Enterprise Data Stewards, is a list of key considerations for each phase of the data lifecycle. As a corporate asset, data has value well beyond immediate needs so it must be carefully managed throughout its entire life cycle. Data life cycle management is key to the flow of the information assets throughout the agency: from planning and creation to the time when the data becomes obsolete and is ultimately deleted.



*ROADS DMP: Key considerations for each phase of the data lifecycle.*

## Introduction

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*Applies to all phases of the data lifecycle.*

1. Is the data that is being produced or retained related to the agency's mission?
2. Have you verified that the data does not already exist somewhere else in the agency?
3. Is any of the data sensitive, proprietary or confidential in nature?
4. Are there any existing data sources that would duplicated?
5. Is the data being used in accordance with all applicable legal mandates, such as copyright or trademarks?
6. Have you established ownership of the data, licensing, and/or restrictions on use?
7. Is consent needed to share the data?
8. Does this data have any time restrictions before it can be shared?

9. Does this data have Intellectual Property Rights conditions?
10. Will a user be required to enter their username and password to access the data, or will it be open to anonymous access?
11. What is the purpose of the data collection?

## Plan

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### *Preparing for the acquisition or creation of new digital content.*

1. Have you prepared a data management plan? If so, how will you manage your program or project data?
2. What will happen to the data after the program or project ends?
3. How much storage will be needed for the volume of data produced?
4. What methods will be available for extracting, transforming and loading the data?
5. What costs are required for the collection or creation of the data? What costs are we currently incurring? What costs might we incur in the future?
6. Would others be interested in using this data (internal, external or both)?
7. What policies govern the management and use of the processed data?
8. Is the processed data confidential? If so, under what rule or statute?
9. Will specialized software be required to read the type of data being produced or collected?
10. What formats will the data collection be in (print/scanned, digital, image, audio, video or other)?
11. What is the expected growth rate of the data?
12. How will the data be collected?
13. How often is the data expected to change (format, schedule, source, other)?
14. How often is the collection method expected to change?

15. Will the data be reproduced or used by another user in your own program area? If so, have you referenced the main source using an application programming interface (API), service, etc.?
16. What would be the impacts if the data were lost or became unusable?
17. Does the data relate to any existing projects? If yes, how?
18. What is the origin of the data?
19. Will any raw data be processed prior to entry into the database?
20. What types/formats do you plan to use for the data generated, exported or published?
21. For large-scaled raw data (images, sequence), have you identified the local storage capacity that can be used for processing?
22. What policies govern the management or use of the raw data?
23. How long will the raw data be kept?
24. How long will the processed data be kept?
25. Does a records retention policy exist or does one need to be created for the data?
26. How much raw data will be produced, and stored (can you make estimates per month, year, full project)?
27. How much processed data will be produced and stored (estimates per month, year, full project)?
28. Is the data first, second or third-party data?
29. What is the original source of the data?
30. Does the dataset contain any personally identifiable information (PII)?
31. What restrictions or regulations exist for the use of the data?
32. Has the data provider adhered to the appropriate federal and state laws for the collection and management of the data?
33. Has FDOT been granted complete control over the data, including how it is processed, stored, managed and secured?
34. Are there any potential integration issues?

35. What measures were taken to ensure the quality of the data?
36. How can we access, and extract metadata related to the dataset?
37. Are special administrative access permissions needed to access all levels of the metadata (technical, business and process metadata)?
38. Who can be granted access to the data?

## Create

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### *Creating or updating digital content.*

1. Does the data comply with agency data standards?
2. What business and technical metadata currently exists for the data?
3. Is the data saved in formats that conform to the department's best practices?
4. Have you used proper file naming conventions?
5. If the data is linked to any other resources, has agency security been carefully considered prior to distribution?
6. Have any third-party data and materials been collected or integrated?
7. Are there any other related materials?
8. Do any data dictionaries, code books or other documentation exist that explain the terms, variable names, codes or abbreviations used?
9. Have you provided documentation describing how the data was collected or created?
10. Have you used standard collection methods, standard data formats, and standard file format choices?
11. Has the data been verified if used in other databases for consistency in data naming?
12. Is it a system calculated data that needs to be stored?
13. Have other Department staff been notified if there is a need to use data produced by their functional area for external reporting?
14. Have acquired data sources, those not produced by FDOT, been properly cited?
15. How will your data be made available to others (API, service, etc.)?

16. Do you plan to limit the use or distribution of your data? If so, why and for how long?
17. Are you planning to restrict access to your data outside of your team?
18. When will the data be made available for use? Does this include a restriction period (if yes, please detail why)?
19. How will you promote your data to permit the widest use possible?
20. What are your data quality assurance processes?
21. When converting from one format to another, have you checked that no data are lost or changed in the process?
22. Have you ensured that the field values are reliable and consistent throughout the dataset?
23. How often do you plan to update the data?
24. Does documentation exist that outlines the process for generating the data?
25. How long do you expect your data to remain available?
26. Have you included the proper metadata (definitions, terms, etc.)?

## Store

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### *Housing data in a storage repository.*

1. What level of data protection is required?
2. Is the data exempt from public records?
3. Is the data confidential? If so, for what period of time?
4. Does a retention schedule currently exist and what is the process for deleting the data?
5. Is there a requirement to purge or delete the data?
6. What storage location or device has been chosen to house the data?
7. Has sensitive data been stored in accordance with state and federal law?
8. How long is storage required?
9. What provisions will you have in place for data recovery, secured storage and the transfer of sensitive data (if required)?

10. If the data is locally stored, how often will it be backed up (weekly, with a differential)?

## Manage

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### *Processing data during an activity.*

1. Have the proper data licensing agreements been followed (intellectual property), as appropriate?
2. Have third-party data and materials been collected and organized, as applicable?
3. Does the data use standardized and documented vocabulary for all data types to allow cooperative use of data across the Department?
4. Has an update schedule been established and followed to ensure the data is a current?
5. Have quality assurance/quality control procedures been followed, including how you address data and model quality and validation steps?
6. Has the data been converted in accordance with quality standards, as needed?
7. Are there other potential uses for the data in the Department and how will people be notified of its availability?
8. Have the information/tools needed for the data to be read or interpreted been established?
9. Have you followed and updated a security plan to ensure that copies of the data are protected, stored and backed up on a regular basis?

## Use

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### *Accessing, viewing or using data during an activity.*

1. Is the data duplicated from another source, such as licensed data?
2. Have you verified that you are using authoritative data within the timeframe for your project or analysis?
3. Have you ensured that you are using data with metadata?

4. If the data contains sensitive information that you are authorized to use, have you ensured that the data is not available to unauthorized staff or personnel?
5. Have you verified that the data you are planning to use has the accuracy needed?

## Share

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### *Sharing data with customers, transportation partners or the public.*

1. Have you adhered to existing agency policies regarding data that can be shared or may be exempt by rule, policy or regulation?
2. Have you adhered to all required data transfer agreements or licenses?
3. Does the sharing of this data have any ethical or legal compliance issues?
4. Have you acquired the appropriate approvals to share this functional area data?
5. How should institutional and/or personal credit be granted for this data?
6. Have you provided any related metadata with the requested information (include context and data sources, where appropriate)?
7. Are your data, records, and files labeled and logically organized?
8. Have you used consistent and easy to understand file names?
9. How much of this data is intended to be shared?
10. How frequently will this data be accessed?
11. Who are the consumers of this data?
12. What method(s) of transfer will be used to share this data?
13. Will this data be published online? If so, where?
14. What methods or software tools are needed to access this data?
15. Are there any restrictions on accessibility? If so, how will you provide access?
16. Prior to sharing, have you removed personal or sensitive information from your data to ensure privacy protection, or established secure methods to protect such information in transit?

## Archive

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*Placing data in short-term, long-term or permanent storage.*

1. What is the basis for the data retention: legal, fiscal, administrative or historical value?
2. What is the record type? Categories include documents, papers, letters, maps, books, tapes, photographs, films, sound recordings, software, electronic data and more.
3. What legal mandates govern the retention period for the data?
4. Do any additional policies that may have been established by a functional area or department currently exist?
5. Is short-term, long-term or permanent storage needed?
6. Have you identified a repository that will make your data accessible for viewing and download?
7. Have you planned for the long-term storage and preservation of your data?
8. Are there any costs associated with maintaining your data in a repository, or otherwise ensuring its long-term preservation? Does funding exist to cover those costs?
9. Are you using data formats and software that enable sharing and ensure long-term validity of data, such as non-proprietary software and software based on open standards?

## Dispose

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*Disposing of or destroying data.*

1. Has the FDOT Records Management Office been contacted prior to disposal of the data?
2. Have all regulatory requirements been met for how long the data must be retained?
3. Have you identified the record series that applies to the data?
4. Have you considered which approved method for the destruction of records applies to your data (F.A.C. 1B-24)?