



Archaeological Survey
Historic Resources Management
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Archaeological Survey Information Bulletin

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Archaeological Report Guidelines

Purpose: This bulletin provides best practices for the preparation of Archaeological Permit reports in accordance with Sections 30(4) and 37(2)(b) of the *Historical Resources Act* (HRA) and is supplementary to report requirements identified in Section 9 of the *Archaeological and Palaeontological Research Permit Regulation* (Regulation).

Rationale: The non-renewable nature of archaeological resources, and the destructive effects of most archaeological investigations, reinforce the need to maintain the highest standards of professional practice and reporting. A report must be completed for any work conducted under an Archaeological Permit, issued either to assess the impacts of a development-related project (Mitigative Permit) or to pursue a research goal (Research Permit). The report becomes the primary repository of information and interpretation associated with a particular archaeological investigation and, therefore, must contain clear and detailed content about the lands investigated, the professional methods and strategies employed, and the context and detailed analysis of archaeological resources encountered. Archaeological reports also inform regulatory decisions made by Alberta Culture, Multiculturalism and Status of Women (CMSW). Operationally, the report contents must be presented in an organized and standardized manner to facilitate access to information and to expedite the regulatory review and response process. While archaeological field programs may sometimes require flexibility in reporting to meet regulatory and research objectives, the following criteria form the basis for review of minimum standards in archaeological reports and evaluation of the need for required revisions.

Scope: Archaeological permit holders working in Alberta.

Key Considerations

- A final report must be submitted no later than 180 days following expiration of the permit. Draft reports will not be accepted.
- Overdue reporting obligations will result in a temporary compliance hold on the permit holder. The compliance hold will prevent the submission of new Mitigative Permit applications until overdue obligations have been addressed.
- Final reports that include the results of work conducted under more than one archaeological permit will not be accepted. When an archaeological field program spans successive permit years, the earlier permit(s) must be transferred through a permit amendment application(s) to the latest permit so that reporting can occur under a single permit number. Approval of permit transfer requests is not guaranteed, especially over multiple years.
- Approval to submit an interim report must be obtained in advance of submission and is determined on a case-by-case basis (see page 14 for details).

Report Types

Three types of reports are accepted for review by CMSW in fulfillment of archaeological permit obligations:

- **Inventory and Impact Assessment Reports** provide information about exploratory archaeological field programs conducted under Mitigative Permits, including historic resources impact assessments, historic resources baseline assessments, construction monitoring projects, and/or post-impact assessments.
- **Detailed Site Investigation Reports** provide detailed description and analysis of evaluative investigations, usually controlled excavation or specialized testing/sampling of archaeological sites, conducted under Mitigative Permits. In some instances, a report may include both inventory/impact assessment results and the results of detailed site evaluation.
- **Research Permit Reports** provide information about research projects, conducted under Research Permits, which are not related to the mitigation of anticipated impacts of proposed development activities to archaeological resources.

General Content Requirements (see Table 1 for detailed requirements)

• Inventory and Impact Assessment Reports

- These reports must include:
 - Description of the development project, including the size, nature and depth of anticipated ground disturbance.
 - Summary of any HRA requirements for archaeology issued to the development proponent.
 - Discussion of previous studies, assessments, and known historic resource sites within and adjacent to the development area.
 - Details of the survey strategy and field investigation procedures employed.
 - Description of the dimensions (horizontal and vertical), nature and significance of identified historic resource sites, and the relationship of these resources to anticipated impact areas.
 - Recommendations, including both site-specific management recommendations and recommendations for the development project as a whole.
 - Proposed site avoidance plans, if applicable, which must be supported by specific long-term avoidance strategies.

• Detailed Site Investigation Reports

- These reports must include:
 - Description of the development project, with particular focus on the relationship to known archaeological sites subjected to detailed site evaluation.
 - Discussion of previous studies, assessments, and HRA requirements, especially those relating to evaluated sites.
 - Description of the nature of the field investigation and analytical techniques employed.

- Discussion of how the evaluative strategy explores the relationship between a site's scientific interpretive potential (i.e., interpretive value, significance, etc.) and anticipated development activities and serves to mitigate anticipated impacts.
- Detailed description of all cultural components encountered, as well as discussion of identified cultural assemblages and how they relate and contribute to both local and regional interpretive historical frameworks.
- Recommendations, including both site-specific management recommendations and recommendations for the development project.
- Proposed site avoidance plans, if applicable, which must be supported by specific long-term avoidance strategies.

- **Research Permit Reports**

- Minimally, these reports must include the following:
 - Research project description, including detailed information about the research problem or investigative goal and the research design used to guide the study. If the goal or scope of the research project changes through time, the reasons behind the changes must be documented.
 - Discussion of previous studies and assessments that have been conducted in the area.
 - Description of pre-field, field, and post-field activities used to complete the research project, including a detailed discussion of all field methods and analytical techniques.
 - Analysis of the information and materials collected, including how they were used to address the investigative goal of the research project.
 - Discussion of the results of the research project.
 - Interpretation of the results, including their evaluation in relation to local and regional interpretive historical frameworks to substantiate the benefits of the research project in compensation for any forfeit of in-place heritage values.
- Reporting standards for Research Permits must meet those required for a Mitigative Permit. The detailed criteria outlined in Table 1 are applicable for consideration, minus those requirements specifically related to proposed development activities. The provision of independently published materials associated with a research project may be considered to fulfill specific reporting requirements.
- For Research Permits issued for post-graduate studies, a copy of the student's thesis or dissertation may be considered an acceptable report submission, provided it includes the content detailed above.
- If a student fails to meet all Research Permit reporting obligations, the academic sponsor will be held responsible for these obligations in accordance with the Regulation and *Student Research Permit Applicant Agreement*. Sponsors facing such situations must contact CMSW immediately to arrange a report submission schedule.

Detailed Content Requirements

- Table 1 details the minimum required content and best practices for all final reports, while Table 2 outlines additional content requirements when certain techniques have been applied during field investigations.
- To facilitate report review, regulatory approvals, and use of the report for research purposes, report contents must conform as closely as possible to the order in which they are described in Table 1.

Table 1. Detailed Final Permit Report Content Requirements

REPORT COMPONENT	DESCRIPTION AND MINIMUM REQUIRED CONTENTS
Title Page	<p>Report title must include the following:</p> <ul style="list-style-type: none"> • Identification of the type(s) of archaeological investigation conducted (e.g., historic resources impact assessment, historic resources baseline assessment, construction monitoring project, post-impact assessment, site excavation, etc.). • Full developer name (if applicable). • Name of the project or, in the case of a Mitigative Permit report, the official name of each development project assessed. • Identification of the phase of reporting (final or interim); if the report is one of a number of interim reports, the sequential number of the interim report must be provided. <p>Report title format:</p> <ul style="list-style-type: none"> • Capitalize the first word of the report title and proper nouns only. • Preferred title format is as follows: Historic resources impact assessment Company Y Project Z: final report. <p>Title page must also include the following information:</p> <ul style="list-style-type: none"> • Full name of the agency for which the report was prepared, if different from the developer (if applicable). • Permit number. • Permit holder's name. • Permit holder's affiliation name and address. • Date of preparation (month, year). • Archaeological Survey statement of confidentiality as per Archaeological Survey Information Bulletin: Confidentiality of Site Information in Overviews and Reports.
Credit Sheet	<ul style="list-style-type: none"> • Identification of permit holder. • Identification of report author or authors.* • Identification of people who assisted with archival research, fieldwork, cataloguing, analytical, technical and other associated tasks. • Other people to whom the author(s) wishes to give credit (i.e., landowners, agents who facilitated the study, etc.). <p><i>* Where multiple authors have credit for a report, the permit holder must be the senior author and identified first in the list of authors. This is based on the requirement that the permit holder be present to actively direct not less than 75% of the fieldwork and assumes that he/she is the best person to lead the presentation of field outcomes.</i></p> <p>Note that the credit sheet page begins the introductory section of the report and will be assigned Roman numeral page number <i>i</i>.</p>
Executive Summary	<p>The Executive Summary is to be a brief encapsulation of the key aspects of the project. It must include concise explanations of the project, the work undertaken, the results, and the recommendations. Any special aspects or circumstances related to any of these topics must</p>

REPORT COMPONENT	DESCRIPTION AND MINIMUM REQUIRED CONTENTS
	<p>be highlighted. Required content is as follows:</p> <ul style="list-style-type: none"> • Type of research or development project investigated. • Official names of both the developer and the development project (if applicable). • Brief description of any changes that occurred in the original project design since HRA requirements were issued or, for projects not triggered by a requirement, since the design was submitted with the permit application. • Brief summary of the methods used in the assessment, including the number and types of subsurface inspections (e.g., number of shovel tests, number of backhoe tests, etc.). • Number and types of historic resource sites identified or revisited as part the investigation, with specific reference to the relevant Borden numbers for archaeological sites, Heritage Survey (HS) key numbers for historic structure sites, and field numbers for Aboriginal traditional use sites. • Relationship between identified or revisited sites and any anticipated development impacts, including evaluation of the scientific interpretive potential of the sites, how this value may be affected by the impacts, abbreviated site-specific recommendations, and the recommended Historical Resource Value (HRV). • Brief summary of recommendations for managing impacts to historic resources relative to development projects or future disturbance activities. Any previous recommendations and regulatory outcomes resulting from interim reports associated with the current permit must be identified.
Table of Contents	<ul style="list-style-type: none"> • Sequence of section and topical headings and their corresponding page numbers.
Lists of Figures, Tables, Plates and Appendices	<ul style="list-style-type: none"> • All figures, plates, tables and appendices must be itemized in these sections, in the order in which they appear, with complete titles and page numbers provided.
Introduction	<ul style="list-style-type: none"> • Triggering mechanism or research goal that led to the need for an archaeological investigation. • Official names of both the developer and the development project (if applicable). • Detailed description of the development project, including its size, nature and anticipated horizontal and vertical ground impacts (if applicable). • Overview map(s) at an appropriate scale illustrating the placement of the research or development project area(s) within the context of the surrounding landscape. • Scope and objectives of the study. • Outside professional expertise (i.e., non-archaeological) that was enlisted to assist with the study. • Development project scheduling and construction phases, based on the earliest anticipated dates of ground disturbance (if applicable). <p>Note that the first page of this section begins the main text of the report and will be assigned Arabic numeral page number 1.</p>
Background	<ul style="list-style-type: none"> • Project History: <ul style="list-style-type: none"> ○ Detailed history of the research or development project, including any changes that occurred to the original project or research design that affected the configuration, footprint or outcome of the study, and the reason for the changes. ○ Any previous recommendations and regulatory outcomes resulting from interim reports associated with the current permit, including from transferred permits, must be identified and placed in the context of the project history and current project status. • Project Environment: <ul style="list-style-type: none"> ○ Environmental factors such as topography and drainage that characterize the research or development project area. ○ Past and present ecological conditions to provide context for interpreting human settlement and land use patterns in the project area over time. ○ Condition of the land within the project footprint at the time of cessation of fieldwork,

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	<p>including any known post-fieldwork changes. This must include the identification of any natural or cultural disturbances that affected the investigation strategy or integrity of historic resources.</p> <ul style="list-style-type: none"> ○ Environmental conditions and patterns, particularly as they relate to or affect the way the study was conducted or scheduled (e.g., excessively wet conditions, snow and frozen ground conditions, etc.). <ul style="list-style-type: none"> ● Previous Research:* <ul style="list-style-type: none"> ○ Summary of archaeological permits under which portions of the project area were examined previously, indicating how they relate to one another, the portion of the research or development project being discussed in the report, and previously issued HRA approvals. ○ Discussion of the pre- and post-contact archaeological context of the project area identified in previous archaeological permit reports and from information found in the Archaeological Sites Inventory. ○ Past and present cultural land use practices (i.e., traditional, historic, etc.) that may affect or inform the interpretation of archaeological deposits identified. <p><i>* The Previous Research discussion should be more than an enumeration of the types of previous investigations and sites identified within the Borden blocks crossed by the study area or development activity. It must include detailed consideration of the archaeological assessment outcomes and site discoveries that have occurred within or in immediate proximity of the research or development project footprint (≤1 km). Discuss how the results of previous studies contribute to an understanding of the regional archaeological context.</i></p>
<p>Research Design</p>	<ul style="list-style-type: none"> ● Explanation of the research design, as outlined in the permit application, that guided the archaeological investigation of the research or development project footprint, providing justification about why this strategy was employed.* ● If an investigation involved target areas, the discussion must be supplemented by text and/or a table that provides details about the environmental characteristics for selected areas, and the criteria used in their selection. ● If excavation occurred, explain the rationale for the placement of excavation blocks and the depth of excavation. <p><i>* Any change in field investigation strategy from what was proposed in the permit application must be identified and discussed.</i></p>
<p>Methods</p>	<ul style="list-style-type: none"> ● Discussion of the archaeological field, laboratory and analytical methods and techniques employed, including: <ul style="list-style-type: none"> ○ Field investigation methods, including any techniques used to cope with special difficulties (e.g., frozen ground conditions, lack of access, poor surface ground visibility, etc.). ○ Surface and subsurface testing methods, including a description of the sampling strategies employed. ○ Procedures used in the recovery, cataloguing, processing and analysis of artifacts, features, faunal materials and organic/environmental residues. ● Special emphasis should be placed on employed investigation methods or procedures that differed from those outlined in the permit application. ● Inventory or Impact Assessment Reports must also address the following: <ul style="list-style-type: none"> ○ Type, size and number of pedestrian transects walked. ○ Information about the size, frequency, interval and depth of shovel, backhoe, core or auger tests, examined surface exposures and monitored construction areas. ○ Inventory and assessment methods used in the identification and evaluation of historic resource sites. ● Detailed Site Evaluation Reports must also address the following: <ul style="list-style-type: none"> ○ Placement, size and depth of excavation units and blocks.

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	<ul style="list-style-type: none"> ○ Assessment methods used in the recording and excavation of archaeological site deposits. ● Laboratory Work must be reported as follows: <ul style="list-style-type: none"> ○ Methods employed for artifact and faunal material identification, detailed through the use of text definitions, a glossary, or references to existing literature. ○ Identification of all techniques used for cleaning, processing and storage of artifacts and faunal material. ○ Identification of reference collections employed during the laboratory assessment, including the names and locations of the collections (if applicable). ○ Identification and description of any specialized analytical procedures employed (e.g., floatation, microscopic use-wear, pollen or phytolith analysis, radiocarbon dating, residue identification, dental cementum ring counts, blood residue, etc.).* ○ If special analytical procedures were conducted as separate contracted investigations, the nature of the studies and the qualifications and affiliation of the additional researcher(s) must be identified, and the results incorporated into the report. <p><i>* Before any destructive testing or analysis can be conducted on an organic or cultural material sample recovered from an archaeological site, a letter granting permission to subject the sample to destructive testing and/or transport it out of the province must be issued. In advance of its accession into the collections of the Royal Alberta Museum, permission must be granted by the Director, Archaeological Survey. For accessioned archaeological materials, permission must be granted by the Curator of Archaeology, Royal Alberta Museum. The request for permission is to be submitted in an email that includes details and location of the proposed testing or analysis, Borden number of the site from which the samples derived, the permit number (if applicable) and detailed catalogue information.</i></p>
Results	<ul style="list-style-type: none"> ● A logically organized presentation of the field investigation and analytical outcomes, usually in the form of a summary discussion of the results of the overall project, followed by site-specific results. ● Results section also must include the following: <ul style="list-style-type: none"> ○ Appropriate scale maps (1:50,000 or scale that most clearly depicts investigation areas) illustrating: <ul style="list-style-type: none"> ▪ All areas of ground survey, including locations that were examined via pedestrian reconnaissance and/or detailed surface inspection. Areas not assessed in detail (e.g., observations from the highway) are not be illustrated as areas of ground survey. Routes used to access the project area should not be illustrated as areas of ground survey unless they are relevant to the overall assessment and are discussed explicitly in the final report. ▪ All detailed investigation areas (i.e., survey target areas, surface testing localities (surface exposures, detailed surface inspection areas, etc.), subsurface testing localities (shovel tests, backhoe tests, core or auger tests, etc.), construction monitoring locations, excavation blocks, etc.) relative to the research or development project footprint, environmental landmarks and historic resource site locations. ▪ Site locations must be labelled with relevant Borden numbers for archaeological sites, HS key numbers for historic structure sites, and field numbers for Aboriginal traditional use sites. ▪ Maps must clearly illustrate the locations of positive versus negative surface and subsurface investigations. ▪ Areas of ground survey, subsurface investigations, and site features illustrated in maps must be consistent with the spatial data submitted with a permit per Archaeological Survey Information Bulletin – Spatial Data Standards. ○ Description of all identified archaeological sites, features, artifacts and organic/palaeoenvironmental materials, including their environmental and archaeological contexts, their horizontal and vertical extents, the testing and evaluation program conducted, and the type of cultural deposits identified, including a

REPORT COMPONENT	DESCRIPTION AND MINIMUM REQUIRED CONTENTS
	<p>discussion of the number of cultural components and the nature of associated artifact assemblages.</p> <ul style="list-style-type: none"> ○ Photograph(s) of identified site areas. ○ Range of catalogue numbers utilized for each site (recommended). ○ Characterization of the integrity of site deposits with respect to existing disturbance factors. ○ Description and evaluation of formed tools, cultural or temporally diagnostic materials, unique artifacts and notable raw materials, accompanied by illustrative drawings or photographs and measurements (if applicable). ○ Discussion of the results of the archaeological investigation, including the field and analytical procedures employed, and how they address the investigative goals of the research or development project. ○ Interpretation of the results including their evaluation in relation to local and regional interpretive historical frameworks. ○ Evaluation of the scientific interpretive potential of each identified or revisited site.* <ul style="list-style-type: none"> ● Inventory or Impact Assessment Reports must also include the following: <ul style="list-style-type: none"> ○ Identification of the sites that will be impacted by disturbance activities, and the type and severity of anticipated impacts, or the distance-from-project measurement if the site lies outside of the impact zone. ○ Sketch maps that include the boundaries of the sites relative to the development footprint, as well as distinctive topographic and modern features/landmarks that will assist in site relocation (e.g., roads, fence lines, power lines, etc.), the location of all visible surface features at the site, and the location of all surface collection locations and subsurface tests. ● Detailed Site Evaluation Reports must also include the following: <ul style="list-style-type: none"> ○ Identification of the size, placement and productivity of detailed evaluation areas, excavation units and excavation blocks. ○ Detailed description of all excavated layers/sediments, including their nature, composition, context and cultural associations. ○ Stratigraphic profile illustrations of excavation units or blocks with clear reference to vertical excavation units (e.g., natural or arbitrary levels) and cultural components. ○ Presentation of the number of cultural components identified within the excavated sediments, with a separate discussion about each individual component, describing its stratigraphic position and relevance, cultural associations, and cultural or temporal affiliations. ○ Identification of the proportion of each identified or revisited site that will be impacted, the type and severity of impact anticipated, and the specific time and phase of the development during which the impact will occur (if applicable). ● All results are to be illustrated with maps, tables, photographs and drawings as necessary to provide support for the information and interpretations presented, including those identified in Archaeological Survey Information Bulletin: Maps in Permit Applications and Reports. <p><i>* The scientific interpretive potential of an archaeological site is based on, but not limited to, a consideration of one or more of the following factors: (1) the range of artifact types, raw materials and cultural residues identified at a site; (2) the range of cultural feature types (e.g., stone features, hearth features, standing structures, etc.) present at a site; (3) the site's cultural material abundance, density and diversity; (4) cultural material patterning within a site area; (5) the relationship of the site's cultural material to known patterns in the local and regional areas; (6) the cultural and temporal associations of the site assemblage; (7) the number and age of cultural occupations represented at a site; (8) the rarity of the site or its cultural materials in the local and regional areas; and, (9) the nature of existing disturbance at the site, and if it interferes with the ability to scientifically evaluate the site's interpretive potential.</i></p>

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<p>Recommendations</p>	<ul style="list-style-type: none"> • Summarize recommendations for the management of each historic resource site in relation to the proposed development activity (if applicable) and provide a recommended HRV to inform future protective measures. Detail any previous recommendations, made through interim reporting, that resulted in HRA requirements or approvals. A tabular summary can be added where warranted. When formulating recommendations for mitigative projects, the following should be given consideration: <ul style="list-style-type: none"> ○ Summary evaluation of the scientific interpretive potential (i.e., interpretive value, significance, etc.) of the cultural materials and sites identified, based on the areas investigated, the methods employed, and the assessment results. ○ Probability of anticipated impacts occurring within identified site areas. ○ Anticipated level of effect the development impacts will have relative to the scientific interpretive potential of each of the evaluated archaeological sites. ○ Mitigative measures that could be undertaken to minimize and reduce impacts to the scientific interpretive potential of the sites affected. ○ Long-term implications of the proposed development or disturbance processes on site management, including secondary effects to archaeological sites, and measures that will be taken to mitigate future impacts. ○ Long-term avoidance strategies and mechanisms for all historic resources recommended for avoidance, including confirmation that the project developer is aware of, and agrees to, the long-term avoidance approach. • Summary recommendations for the development project as a whole (if applicable). Where necessary, these should include maps that clearly identify those parts of a development footprint recommended for approval, approval with conditions, site avoidance, or additional investigation. Detail any recommendations that have been considered previously, as a result of interim reporting, and the current status of the project. <p>NOTE: Mitigative recommendations must prioritize outcomes that minimize damage or disturbance likely to result from proposed development activities and must clearly identify the means by which this can be achieved. Where impact avoidance is not possible, the author must identify the specific reasons why this preferred outcome cannot be achieved.</p>
<p>References Cited</p>	<ul style="list-style-type: none"> • Provide a comprehensive list of all sources cited in the report (SAA style preferred), including all publications, unpublished documents, manuscripts or reports, archival or corporate records, presentations, slide shows, internet information or personal communications. • Personal communications in the reference list will include the name of the person consulted, the city where the consultation took place and the date on which the communication occurred.
<p>Appendices</p>	<ul style="list-style-type: none"> • Provide supporting documentation for the final report including separate appendices for the following: <ul style="list-style-type: none"> ○ Relevant HRA requirements document(s) (if issued). ○ Archaeological Sites Inventory data forms* (if sites were recorded or revisited). ○ Heritage Survey site forms and associated documentation for historic structures or features (see requirements for Recording and Reporting Historic Structures). ○ Formal development plans (for all Mitigative Permits). ○ Artifact catalogues for Inventory and Impact Assessments Reports if artifacts were collected. Minimally, the catalogue must contain all required fields identified in the Archaeological Information Bulletin: Artifact Submission Guideline. Blank fields that contain no information about the collection can be excluded from the printed version. The provision of printed artifact catalogues for Detailed Site Investigation and Research Reports is preferred whenever feasible, but is not required. When artifact catalogues are determined to be too large for inclusion in printed format (i.e., >30 pages), they must be provided in digital version on a CD enclosed in the back cover of the report. Printed catalogue pages must be at a scale that is legible. This may require printing on

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	<p>11x17 inch pages that are accordion folded in the report.</p> <ul style="list-style-type: none"> ○ Tool descriptions (if applicable and not already included in the Results section). • Appendices may also include additional photographs, multi-page tables, maps, special analytical reports, or other information that cannot be incorporated directly into report text pages. • While the non-confidential outcomes of consultation with First Nations associated with Indigenous traditional use sites of an historic nature may be provided in summary form in the body of the report, specific details of consultation efforts must be submitted as a separate report, not as an appendix in an archaeological permit report. Consultation efforts are often confidential and not directly related to the investigations conducted under an archaeological permit; therefore, a resulting report must not bear the archaeological permit number. <p><i>*Archaeological Site Inventory data forms are required for all archaeological sites recorded or revisited under the permit and must be included in both interim and final reports. Draft site forms are acceptable for interim reports but, prior to submission of the final report, all archaeological site forms must be reviewed and approved by the Archaeological Survey's Archaeological Information Coordinator. Site forms bound into a final report must be the approved versions, watermarked by CMSW as Final.</i></p> <p>Note that pagination of the appendices must continue sequentially from the last page of the main body text.</p>

Table 2. Supplementary Reporting Requirements

REPORT COMPONENT	DESCRIPTION AND MINIMUM CONTENTS
<p>Maps, Figures, and Tables</p>	<ul style="list-style-type: none"> • Maps must adhere to the requirements detailed in Archaeological Survey Information Bulletin – Maps in Permit Applications and Reports. In all cases, maps must be scaled appropriately to convey necessary information, and all content must be legible, including symbols and text. • Figures and tables must be scaled appropriately to convey necessary information, and all content must be legible, including photos, symbols and text. • Site-specific figures and tables must include the appropriate site reference in the caption.
<p>Shovel and Backhoe Testing</p>	<ul style="list-style-type: none"> • If shovel or backhoe testing was conducted, the Results section of the final report must include the following additional detail: <ul style="list-style-type: none"> ○ Type, number, size and depth of tests excavated. ○ Indication of the portions of the research or development project footprint on which tests were excavated and the landforms on which they were placed, with an explanation of the anticipated development impacts that would occur in those areas. ○ Evaluation of the relative success of the employed survey and sampling strategy through consideration of the location, density and productivity of tests. This must include an explanation of why some portions of the project footprint were tested and others were not and a discussion and interpretation of both positive and negative results. ○ Table with Universal Transverse Mercator (UTM) coordinates (including zone number) for the approximate centroid of each positive test, indicating what cultural materials were observed/collected and the depths and types of sediments from which they were collected. Each test location must be identified using the same unique SI_Name that appears in the spatial data submission. Development projects characterized by a large number of positive tests may provide this information as a separate appendix. ○ Textual description of the nature of the sedimentary profile characteristic of each survey target area or site, including information about the depth of the sedimentary unit, the nature, type and colour of the sediments and any notable cultural or natural inclusions. ○ Schematic profile drawing and photograph of the stratigraphy in at least one characteristic subsurface test in each survey target area or site.
<p>Winter Conditions</p>	<ul style="list-style-type: none"> • If investigations were conducted under winter conditions, the final report must include the following additional information: <ul style="list-style-type: none"> ○ Survey strategy employed for winter investigation of the research or development project footprint and the type of equipment used to create surface visibility and conduct subsurface tests in snow-covered, frozen or partially frozen sediments. ○ Number and size of areas cleared of snow for surface visibility, and the number and size of subsurface tests. ○ Contents of the tests, including descriptions of the subsurface sediments and how the frozen sediments were broken down or thawed to ensure adequate recovery of cultural materials. ○ Map illustrating the areas assessed, including areas cleared for surface examination, areas that were not cleared, and areas subject to subsurface testing. ○ Photographic documentation of the surface visibility conditions, the methods used to create surface and subsurface visibility and the results of those methods.

REPORT COMPONENT	DESCRIPTION AND MINIMUM CONTENTS
	<ul style="list-style-type: none"> ○ Evaluation of the methods employed. Were they successful in achieving the goals of the project? Can improvements be made to winter assessment methods?
Final Edit	<ul style="list-style-type: none"> • All reports must undergo a final review and edit prior to submission to ensure adherence to these guidelines and checking for the following: <ul style="list-style-type: none"> ○ Spelling and grammar. ○ Completeness – ensure all historic resources have been addressed as necessary. ○ Consistency – ensure there is consistency in content between the executive summary, main text, summary sections, site forms, and any other appendices in terms of: <ul style="list-style-type: none"> • Numbers of sites, surface and subsurface tests, and artifacts. • Site identifiers (e.g., Borden numbers). • Recommendations. • Spatial data, to ensure the report and the submitted spatial data align.
Report Submission	<ul style="list-style-type: none"> • One hard copy of all permit reports (interim and final) is required. • A review-quality PDF copy of the report must be attached to the Archaeological Report Summary Application submitted through the Online Permitting and Clearance (OPaC) system. • Review of final reports for Mitigative Permits will begin only when the following additional information has been received: <ul style="list-style-type: none"> ○ Associated Historic Resources (HR) Application(s), if applicable, submitted through OPaC. ○ Spatial data submission, attached to an HR Application, or to the Archaeological Report Summary application if no HR Application is required.

Format Requirements

- While most presentation and stylistic elements, such as font type, page margins and drafting style choices will be left to individual authors, the result must be a report that is clear, well organized and legible.
- Some formatting conventions will be required by CMSW, as follows:
 - Reports must be printed on letter-sized paper (8.5 x 11 inches).
 - If double-sided printing is used, the paper must be of sufficient weight to prevent bleed through.
 - Reports must be cerlox (comb) bound to facilitate replacement of pages. Reports requiring a cerlox spine of greater than 2 inches in width must be separated into multiple volumes. Reports requiring a cerlox spine of 2 inches or less in width must not be separated into multiple volumes.
 - Where oversize pages are necessary, they may be printed on tabloid-sized paper (11 x 17 inches), but they must be bound into the report and accordion folded to fit the 8.5 inch report width.
 - All pages that bear any text, with the exception of the title page, must be numbered.
 - All preliminary pages are numbered with consecutive Roman numerals.

- Body text pages and any subsequent pages (e.g., Appendices) are numbered with consecutive Arabic numerals, commencing with 1 on the first text page (usually the Introduction) and ending with the last page of the document. Numbering the pages of each section of the report independently is not acceptable.
- Pagination of introductory and main text sections for additional volumes must begin at *i* and 1, respectively.
- Font size of all report text must be 10 point or greater.
- Font sizes used in maps must be of a size and colour that is entirely legible.
- Wherever possible, figures, photographs, maps and tables are to be incorporated directly into the text rather than bundled into an appendix. These materials must be legible and of sufficient quality to facilitate detailed review of the contents.

Required Contributory Submissions

- One hard copy of the final report(s) in cerlox (comb) binding is required and must be accompanied by the following additional materials:
 - An Archaeological Final Report Summary Application, submitted through the OPaC system, with a pdf copy of the report attached.¹
 - One HR Application, submitted through OPaC, for each development project assessed under a Mitigative Permit for which a response is necessary.² Each application must include formal development plans issued by the developer.
 - Development plans must be legible and at a scale that clearly illustrates specific project details, including any reroutes, revisions and ancillary developments. Plans must include the project name, developer name and the location identified using the Alberta Township Survey (ATS) system to at least the section level.
 - Archaeological maps will not be accepted in place of formal development plans issued by the developer except in rare cases where development plans are not available at the time of application (e.g., historic resources baseline assessments, etc.). In these instances, the best possible replacement map(s) must be provided along with an explanation of the deficiency. The map(s) must meet the requirements of development plans listed above. The use of this approach must be kept to a minimum and may not always be accepted. For more details see [Archaeological Survey Information Bulletin: Maps in Permit Applications and Reports](#).

¹ The OPaC upload size limit of 200 MB should accommodate most reports saved as review quality. Contact the Regulatory Approvals and Information Management (RAIM) unit of the Archaeological Survey if alternative submission methods are required.

² Submission of an individual HR application is required for each *Historical Resource Act* schedule of conditions or requirements addressed under the permit and for each development project that may have been included in the permit as a result of a client request or another regulatory trigger, so that a response(s) can be issued to the proponent regarding fulfillment of and/or outstanding conditions and/or requirements. Each HR application submitted should bear a unique HRM project number. Submission of an HR application(s) with a final report may not be required if an HRA response was issued previously, in response to an interim report, or if a development project has been cancelled or postponed and no response is needed at the time of report submission. If in doubt about what constitutes a development project or if an HR application is required, contact the RAIM unit of the Archaeological Survey prior to report submission.

- Spatial data conforming to the [*Spatial Data Standards for Archaeological Survey and Excavation*](#).
 - For Mitigative Permits for which a development-related response is being requested, spatial data must be attached to one of the related HR applications.
 - For Mitigative Permits for which project approval has already been issued or for which a response will be requested at a later date and for Research Permits, spatial data must be attached to the Archaeological Report Summary Application.
 - Spatial data are considered an essential component of reporting. Spatial data not submitted by the mandated final report due date may result in a temporary compliance hold on the permit holder.
 - Instructions and templates for the *Spatial Data Standards for Archaeological Survey and Excavation* are available online.
- Archival digital data must be submitted within one year of receipt of notification of report approval (see [*Archaeological Survey Information Bulletin: Digital Data Submission*](#) for content and format requirements).

Interim Reports

- The use of interim reports to gain HRA approval is not acceptable as a standard practice. Occasionally, development schedules for projects requiring HRA approval conflict with the time necessary for the completion of a final report. When this occurs, CMSW may allow the submission of an interim report. Approval to submit must be obtained in advance by contacting the Manager, Regulatory Approvals and Information Management to discuss the feasibility of a particular submission.
- Unless it is included in the report contents, an interim report must be accompanied by a written statement that justifies their use in relation to development schedules or other project considerations.
- An interim report must include sufficient detail about the development background, surface and subsurface testing methods, and results to support site and project recommendations and to allow CMSW to confidently evaluate site significance and determine how proposed development activities will affect identified historic resources.
- All interim reports must include the following:
 - The most current and complete information about the nature of the development (or the portion of the development covered in the interim report), the historic resource sites identified, the results of site testing, and the relationship of the anticipated development impacts to assessed sites.
 - Formal development plans of the project or the best plans available at the time of reporting.
 - Appropriately scaled maps of the development footprint, indicating the location of all identified historic resource sites and all testing and collection areas.
 - Archaeological Site Inventory Data forms or Heritage Survey site forms for all sites discussed in the report.
- Submission must include one hard copy of the interim report, plus the following additional materials:
 - An Archaeological Interim Report Summary Application submitted in OPaC.

- A PDF copy of the interim report must be attached to the Archaeological Report Summary Application.
- An HR Application for each project for which HRA approval, partial approval, or additional requirements are being requested, with the following attachments:
 - Formal development plans of the project issued by the developer or the best plans available at the time of reporting. Plans must include the project name, developer name and the location identified using the Alberta Township Survey (ATS) system. These plans must not include illustration of historic resource site locations.
 - (Optional) Spatial data conforming to the [Spatial Data Standards for Archaeological Survey and Excavation](#) may be provided with an interim report. If submitted, the spatial data must illustrate only the data pertinent to the interim report.

Please note that review of a final or interim report is not initiated until all required submission components are received by the Archaeological Survey. It is the responsibility of the archaeological permit holder to ensure that all required materials are submitted in a timely manner.

Whenever possible, review of reports for other types of historic resource investigations (e.g., palaeontological HRIAs) for the same project will be conducted simultaneously with the review of archaeological reports. This contributes to the timely processing of proponent applications and the efficient use of CMSW resources. As a result, initiation of the review of an archaeological permit report may be delayed while awaiting submission of another report. For this reason, archaeological permit holders are encouraged to coordinate the timing of submissions with other historic resource consultants when the situation allows.

For further information please contact Martina Purdon, Manager, Regulatory Approvals & Information Management at 780-431-2331 (toll-free by first dialing 310-0000) or martina.purdon@gov.ab.ca.

Approved by: Darryl Bereziuk, Director, Archaeological Survey

Date: March 1, 2020