Metadata:
  Identification_Information:

    Citation:
      Citation_Information:
        Originator: Comprehensive Coastal Inventory, Virginia Institute of
          Marine Science
        Publication_Date: 2000
        Title: King and Queen County Shoreline Situation Report - 2000
        Geospatial_Data_Presentation_Form: vector digital data
        Series_Information:
          Series_Name: Special Report in Applied Marine Science and Ocean
            Engineering No 363 of the Virginia Institute of Marine Science
          Issue_Identification: SRAMSOE No 363
        Publication_Information:
          Publication_Place: Gloucester Point, Virginia
          Publisher: Virginia Institute of Marine Science

    Description:

      Abstract:
        Shoreline Situation Reports (SSR) were first generated by VIMS
        in the 1970s to report the condition and status of the shore lands.
        The SSR series were published in hardcopy on a county by county basis
        for each of the Tidewater Virginia localities. The reports were
        intended to assist planners, managers, and regulators in decisions
        pertaining to management of coastal areas and natural resources
        therein. This report marks the beginning of a process which updates
        and expands the ealier reports. Data collected describes conditions
        in the immediate riparian zone, the bank, and along the shore.

      Purpose: To inventory Virginia's tidal shoreline conditions.

      Supplemental_Information:
        There are three coverages that are included in this metadata file;
        kq_lubc, kq_astru, kq_sstru. Kq_lubc (land use and bank cover for
        King and Queen County) is an arc coverage containing data about
        the land use, bank height, erosion, marsh, and beach status along
        the shoreline. Kq_sstru (King and Queen County shoreline structures)
        contains data on the linear hard structure for shoreline protection
        (bulkhead, riprap, groin fields). Kq_astru (King and Queen County
        access structures) coverage is a point coverage with locations of
        docks, ramps, and boathouses. The attributes of these three coverages
        are explained in the Enity and Attribute Information section below.

    Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date: 1998
      Currentness_Reference: ground condition at time of survey

    Status:
      Progress: Complete
      Maintenance_and_Update_Frequency: Unknown

    Spatial_Domain:

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      Bounding_Coordinates:
        West_Bounding_Coordinate: -77.18767359
        East_Bounding_Coordinate: -76.64424491
        North_Bounding_Coordinate: 37.93771734
        South_Bounding_Coordinate: 37.43566267

    Keywords:
      Theme:
        Theme_Keyword_Thesaurus: none
        Theme_Keyword: Shoreline condition
        Theme_Keyword: Shoreline structures
      Place:
        Place_Keyword_Thesaurus: none
        Place_Keyword: Virginia
        Place_Keyword: York River
        Place_Keyword: King and Queen County

    Access_Constraints: none

    Use_Constraints:
         These data should not be used for jurisdictional permit
         determinations beyond providing general shoreline condition or
status
         information. These data have not been surveyed to property
boundaries.

    Point_of_Contact:
      Contact_Information:
        Contact_Person_Primary:
          Contact_Person: Marcia Berman
          Contact_Organization:  Virgina Institute of Marine Science (VIMS)
        Contact_Position: Director of Comprehensive Coastal Inventory Program
        Contact_Address:
          Address_Type: mailing address
          Address: P.O. Box 1346
          City: Gloucester Point
          State_or_Province: Virginia
          Postal_Code: 23062
          Country: USA
        Contact_Voice_Telephone: (804) 684-7188
        Contact_Facsimile_Telephone: (804) 684-7179
        Contact_Electronic_Mail_Address: marcia@vims.edu

    Data_Set_Credit:
          Collection of the data would not have been possible without
          the cooperation of VIMS Vessel Center. The following CCI
          staff participated in the data collection: Marcia Berman, Donna
          Bilkovic, Mike Campana, Sharon Dewing, Dan Schatt, Kevin Skunda,
          Harry Berquist, Carl Hershner, and Tami Rudnicky.

    Native_Data_Set_Environment:
      SunOS, 5.5.1, sun4u UNIX
      ARC/INFO version 7.2.1


  Data_Quality_Information:
    Attribute_Accuracy:
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      Attribute_Accuracy_Report:
        The attributes were compared to original GPS data logs for accuracy.
        Errors were corrected where noted.

    Logical_Consistency_Report:
      Chain-node topology present. Linear coverages were built for line and
      point coverages were built for points.

    Completeness_Report:
      All King and Queen shoreline that has a minimum depth of 2 feet at
      mean low water was surveyed.


    Positional_Accuracy:
      Horizontal_Positional_Accuracy:
        Horizontal_Positional_Accuracy_Report:
         Shoreline structures were recorded with a GPS unit as the boat moved
          along the shoreline. Data was transferred from the GPS boat track
to
          an existing digital shoreline by projecting the data onto the
          shoreline at a 90 degree angle. Rectified digital orthophoto quads
          were used in the background to aid in the data positioning. Dock
and
          boathouse point data were aligned with the docks on the images.
          Land use features were placed along the shore so that changes in
          land use matched the changes in the imagery. Positional accuracy
          for data that has been corrected with imagery is +/- 2 meters. Data
          that is not visable on the imagery (bulkheads, riprap, etc.) has an
          accuracy of +/- 11 meters. Accuracy was determined by comparing
          digitally processed data locations with onsite GPS ground surveys
          collected at random to determine accuracy.

    Lineage:
      Source_Information:
        Source_Citation:
          Citation_Information:
            Originator: Comprehensive Coastal Inventory Program, Virginia
               Institute of Marine Science
            Publication_Date: 1991
            Title: Mean High Water Shoreline Position, Virginia
            Geospatial_Data_Presentation_Form: vector digital data
        Source_Scale_Denominator: 24,000
        Type_of_Source_Media: mylar
        Source_Time_Period_of_Content:
          Time_Period_Information:
            Range_of_Dates/Times:
              Beginning_Date: 1964
              Ending_Date: 1987
          Source_Currentness_Reference: date of USGS map
        Source_Citation_Abbreviation: shl
        Source_Contribution:
          Digital shoreline serves as base shoreline for shoreline
conditions.

      Source_Information:
        Source_Citation:
          Citation_Information:
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            Originator: U.S. Geological Survey
            Publication_Date: 1994
            Title: Digital Orthophoto Quadrangles
            Geospatial_Data_Presentation_Form: remote-sensing image
            Publication_Information:
              Publication_Place: Reston, VA
              Publisher: U.S. Geological Survey
          Type_of_Source_Media: color infra-red digital imagery
          Source_Time_Period_of_Content:
            Time_Period_Information:
              Range_of_Dates/Times:
                Beginning_Date: 19940222
                Ending_Date: present
            Source_Currentness_Reference: ground condition
          Source_Citation_Abbreviation: DOQQ
          Source_Contribution:
            Serves as a background coverage in the map portfolios. Used to
            accurately position land cover and shore structure locations.


      Process_Step:
        Process_Description:
          Data was collected by a three-person field crew (two data
collectors
          and one boat operator) using two hand-held Trimble GeoExplorers GPS
          Units, and navigating along the shoreline. A data dictionary
designed
          for the inventory was installed on each GPS Unit. One data
collector
          recorded natural features including land use, bank height, presence
          of marsh or beach, and shoreline stability. A second person
collected
          data on the hardened structures: riprap, bulkheads, docks,
boatramps,
          etc. Point features (docks, boathouses, ramps) were surveyed with
          a ten second observation recorded at 1 reading/second. Linear
          features were surveyed kinematically at a rate of one observation
          every 3 seconds.
        Process_Date: 1998

      Process_Step:
        Process_Description:
          Data from the GPS units were postprocessed on a PC with Trimble
          Pathfinder Office software. Postprocessing included differential
          correction using base station data collected at the VIMS
laboratory.
          Corrected data was converted into ArcInfo coverages and transfered
          to a UNIX workstation for further processing.
        Process_Date: 1999

      Process_Step:
        Process_Description:
          Using ArcInfo in the UNIX environment, the base shoreline (SHL)
          was clipped to the King and Queen County boundary. The shoreline
          was then overlayed with the DOQQ imagery and the arcs where
adjusted
          to match the imagery shoreline.
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        Source_Used_Citation_Abbreviation: shl and DOQQ
        Process_Date: 1999

      Process_Step:
        Process_Description:
          In the UNIX ArcInfo environment, boat-track points and arcs were
          manually shifted to the updated base shoreline (SHL). Arcs were
split
          and points were moved to locations on the shoreline that were
          perpendicular to the original locations on the boat-track.
Shoreline
          arcs segments and points were coded, and the coverages were
visually
          checked for attribute accuracy between coded shoreline and boat-
track
          data.
        Source_Used_Citation_Abbreviation: shl
        Process_Date: 1999

      Process_Step:
        Process_Description:
          Land use, dock, and boathouse locations were digitally checked and
          repositioned if necessary with DOQQ imagery displayed in the
          background. This was done using ArcInfo's ArcEdit capabilities.
        Source_Used_Citation_Abbreviation: DOQQ
        Process_Date: 1999

      Process_Step:
        Process_Description:
          A portfolio containing nineteen 1:12000 scale plates was created
          for King and Queen County. Each plate shows three maps; riparian
          land use, bank and buffer conditions, and shoreline features.
          DOQQ imagery is displayed as a background image on each map.
        Process_Date: 2000

  Spatial_Data_Organization_Information:
    Direct_Spatial_Reference_Method: Vector
    Point_and_Vector_Object_Information:
      SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type:  String
        Point_and_Vector_Object_Count: 565
      SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type:  Point
        Point_and_Vector_Object_Count: 325
      SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type:  String
        Point_and_Vector_Object_Count: 491
      SDTS_Terms_Description:
        SDTS_Point_and_Vector_Object_Type:  String
        Point_and_Vector_Object_Count: 455


  Spatial_Reference_Information:
    Horizontal_Coordinate_System_Definition:
      Planar:
        Grid_Coordinate_System:
          Grid_Coordinate_System_Name: Universal Transverse Mercator
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          Universal_Transverse_Mercator
            UTM_Zone_Number: 18
            Transverse_Mercator
              Scale_Factor_at_Central_Meridian: 0.9996
              Longitude_of_Central_Meridian: -75 W
              Latitude_of_Projection_Origin: 0.0
              False_Easting: 500000
              False_Northing: 0.0
        Planar_Coordinate_Information:
          Planar_Coordinate_Encoding_Method: coordinate pair
          Coordinate_Representation:
            Abscissa_Resolution: 5.477575
            Ordinate_Resolution: 5.477575
          Planar_Distance_Units: Meters
      Geodetic_Model:
        Horizontal_Datum_Name: North American Datum of 1983
        Ellipsoid_Name:  GRS1980
        Semi-major_Axis: 6378206.4
        Denominator_of_Flattening_Ratio: 294.98

  Entity_and_Attribute_Information:
    Overview_Description:
      Entity_and_Attribute_Overview:
        Below is a listing of the attributes found in the three coverages
        (_lubc, _astru, and _sstru). The first seven items found in the .aat
        files and the first four items in the .pat file are ArcInfo
generated.
        The item UPLAND with the value of 1 defines the land/water boundary.
        FIPS contains the county codes as defined by the Federal government.
        FEATURE is land use and contains the following values: 1 = forested,
        2 = scrub-shrub, 3 = grass, 4 = residential, 5 = commercial, 6 =
bare.
        HEIGHT is the bank height with 1 = 0 - 5 feet, 2 = 5 - 10 feet,
        and 3 = greater than 10 feet. EROS is the bank erosion condition
        where 1 is low erosion and 2 is high erosion. MARSH defines 1 = marsh
        eroding, 2 = marsh not eroding, and 3 = no marsh. BEACH defines 1 =
        beach eroding, 2 = beach not eroding, and 3 = no beach. An item with
        a value of zero means either the structure is not present (as found
        in the structure coverage), or that the shoreline in question was not
        surveyed (as found in the land use/bank cover coverage). BTHS, DOCK,
        and RAMP are present if the value is 1. PTINT contains points of
        interest which have been incorporated into the _sstru coverage. BLKHD
        (bulkhead), RPRP (riprap), GROIN, and BREAKWATER are present with a
        value of 1.
        >
        >KQ_LUBC.AAT:
        >
        >COLUMN   ITEM NAME        WIDTH OUTPUT  TYPE N.DEC  ALTERNATE NAME
        >    1  FNODE#                4     5     B      -
        >    5  TNODE#                4     5     B      -
        >    9  LPOLY#                4     5     B      -
        >   13  RPOLY#                4     5     B      -
        >   17  LENGTH                4    12     F      3
        >   21  KQ_LUBC#              4     5     B      -
        >   25  KQ_LUBC-ID            4     5     B      -
        >   29  UPLAND                1     1     I      -
        >   30  FIPS                  4     4     I      -
```

```
>   34  FEATURE                1     1     I      -
>   35  HEIGHT                 1     1     I      -
>   36  EROS                   1     1     I      -
>   37  MARSH                  1     1     I      -
>   38  BEACH                  1     1     I      -
>
>
>KQ_ASTRU.PAT:
>
>COLUMN   ITEM NAME        WIDTH OUTPUT  TYPE N.DEC  ALTERNATE NAME
>    1  AREA                   4    12     F      3
>    5  PERIMETER              4    12     F      3
>    9  KQ_ASTRU#              4     5     B      -
>   13  KQ_ASTRU-ID            4     5     B      -
>   17  WATER                  1     1     I      -
>   18  FIPS                   4     4     I      -
>   22  BTHS                   2     2     I      -
>   24  DOCK                   2     2     I      -
>   26  RAMP                   2     2     I      -
>   28  PTINT                 30    30     C      -
>
>
>KQ_SSTRU.AAT:
>
>COLUMN   ITEM NAME        WIDTH OUTPUT  TYPE N.DEC  ALTERNATE NAME
>    1  FNODE#                 4     5     B      -
>    5  TNODE#                 4     5     B      -
>    9  LPOLY#                 4     5     B      -
>   13  RPOLY#                 4     5     B      -
>   17  LENGTH                 4    12     F      3
>   21  KQ_SSTRU#              4     5     B      -
>   25  KQ_SSTRU-ID            4     5     B      -
>   29  UPLAND                 1     1     I      -
>   30  FIPS                   4     4     I      -
>   34  BLKHD                  4     4     I      -
>   38  RPRP                   4     4     I      -
>   42  GROIN                  4     5     B      -
>   46  BREAKWATER             4     5     B      -
>
```

Entity_and_Attribute_Detail_Citation: none

Distribution_Information:
  Distributor:
    Contact_Information:
      Contact_Organization_Primary:
        Contact_Organization: Virgina Institute of Marine Science (VIMS)
      Contact_Position: Director of Comprehensive Coastal Inventory Program
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        Address: P.O. Box 1346
        City: Gloucester Point
        State_or_Province: Virginia
        Postal_Code: 23062
        Country: USA
      Contact_Voice_Telephone: (804) 684-7188
      Contact_Instructions: Contact via email

Contact_Electronic_Mail_Address: marcia@vims.edu

Distribution_Liability:

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Metadata_Reference_Information:
Metadata_Date: 20000327
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Contact_Organization: Virginia Institute of Marine Science (VIMS)
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Country: USA
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Contact_Electronic_Mail_Address: tamia@vims.edu
Metadata_Standard_Name:
FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Access_Constraints: none
Metadata_Use_Constraints: none