

INTRODUCTION

The Water-Related Death Scene Investigation (DSI) Protocol is a tool to help investigators collect detailed, standardized information in drowning and other water-related deaths. It provides a process for investigators to seek and collect rich, detailed, and contextual information that can support more effective investigations, public safety, public health, and prevention planning. Throughout this protocol, the decedent is referred to as “the subject.”

The Water-Related DSI Protocol is divided into three parts:

REPORTING PARTY/WITNESS INTERVIEW FORM

Found on **page 2**, this portion of the Protocol is intended to collect important information from people at the scene, including witnesses or those who found the subject. It poses time-sensitive questions to those in the vicinity of the incident or where the subject was found. If family members are the witnesses/reporting party, additional questions from the Decedent Information Report should be asked.

SCENE PROCESSING FORM

Found on **page 6**, this portion of the Protocol is intended to collect important information about the location and environment where the subject was found. It poses time-sensitive questions to collect transient information and process the scene.

DECEDENT INFORMATION FORM

Found on **page 18**, this portion of the Protocol includes important information about the subject, including significant risk factors for drowning. Information in this section may be collected from multiple sources including further investigation activities, autopsy reports, and family members.

The following report summarizes the investigation of the following individual:

Name of subject:

Subject date of birth:

Subject date of death:

Subject sex at birth: Female Male

Subject race (*check all that apply*): Alaska Native, specify tribe:

Native Hawaiian

American Indian, specify tribe:

White

Pacific Islander, specify:

Black

Asian, specify:

Unknown

Hispanic or Latino/a origin?: Yes No Unknown

Subject height and weight:

feet

inches

pounds

ounces

Time of death, if known (Military):

Unknown

SCENE PROCESSING FORM

This information should be collected by a responder or investigator **at the scene of the investigation.**

When possible, make photographic documentation of the following evidence and note time taken. Take photographs of the body and scene as quickly as possible after the body is discovered. Include the hands, feet, and eyes of the body, and any layers of protection at the scene (alarms, fencing). Gather other video or photos if taken by bystanders or security footage.

1. Location of incident

Location of incident:

Street:

City:

State:

ZIP:

GPS Coordinates:

Phone:

Email:

2. Date and time of incident:

Unknown

[Military] Unknown

3. Person completing this report, and rank or title:

4. Agency:

5. How many people were present at the incident location at time of incident? Estimate if necessary.

Unknown

6. What was the estimated time between when the subject was last seen and the body was recovered?

Not applicable, body never recovered

0-5 minutes

6-10 minutes

11-30 minutes

31-59 minutes

1-4 hours

5-24 hours

More than 24 hours

Unknown

7. Who found the subject?

Same person as listed as witness or reporting party

8. Was the incident captured in surveillance video or other video, including from bystanders?

Yes

No

Unknown

9. Describe the position the subject was found in.

Not applicable, body never recovered

At bottom of water (*i.e. bottom of the pool, riverbed*)

On shore

Floating on the surface

Other, describe:

Tangled or entrapped under/by objects/debris, describe:

10. Describe the body of the subject when found, including position.

11. How was the subject removed from the water? Include by whom and how.

12. Were any of the following observed upon recovery of the subject? Document injuries in scene photographs or a body diagram. Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Fixed lividity ¹ | <input type="checkbox"/> Wrinkling on feet |
| <input type="checkbox"/> Wrinkling present on hand(s) | <input type="checkbox"/> Tache noir present in left eye |
| <input type="checkbox"/> Tache noir ² present in right eye | <input type="checkbox"/> Other injuries, describe: |
| <input type="checkbox"/> Pulmonary edema/foam cone/vomit | <input type="checkbox"/> None of the above |
| <input type="checkbox"/> Rigor | <input type="checkbox"/> N/A, body not recovered |

13. Please upload any images or videos of the body and the scene, including any notable objects, including the shore, patio, dock, stairs, fences, barriers, or other landmarks. If unable to share for legal reasons, please note what media exists.

14. Describe everything the subject was wearing when recovered, including undergarments, life jackets/other PFDs, accessories, glasses, jewelry, and footwear. Detail any body piercing, tattoos, or identifying birth marks. Include items found on subject, such as cellphone, wallet, keys, etc.

15. Document all applicable temperatures (° Fahrenheit):

Water temperature: 0-32° 33-60° 61-80° 81° or Warmer Unknown

Air temperature: Unknown

Core body temperature: Unknown

15a. If assessed, how was core body temperature measured? If not assessed, proceed to question 16.

- Rectal Under the arm Other, describe: Unknown

¹ Lividity occurs when the heart is no longer pumping blood throughout the body. It is considered 'fixed' when the blood cannot be blanched, typically 8-12 hours after death.

² Tache noir is a postmortem drying artifact visible in the eyes that does not occur when eyes remain submerged postmortem. Eyes should be photographed as soon as possible after body recovery.

16. Environmental factors can sometimes contribute to a drowning or hamper rescue efforts. Select all relevant environmental factors that may have increased risk or contributed to the drowning

- | | | |
|--|--|--|
| <input type="checkbox"/> None | <input type="checkbox"/> Rip current/undertow | <input type="checkbox"/> Rocky shore/outcropping |
| <input type="checkbox"/> Water temperature | <input type="checkbox"/> Wind, proceed to 16b. | <input type="checkbox"/> White water/foam |
| <input type="checkbox"/> Ice | <input type="checkbox"/> Flash flood | <input type="checkbox"/> Waves, proceed to 16c. |
| <input type="checkbox"/> Current, proceed to 16a. | <input type="checkbox"/> Other severe weather event, describe: | |
| <input type="checkbox"/> Water clarity | <input type="checkbox"/> Other, describe: | |
| <input type="checkbox"/> Dropoff | <input type="checkbox"/> Unknown | |
| <input type="checkbox"/> Variable depth water, such as retention pond or lowhead dam | | |

16a. Speed of current, in knots: Unknown

16b. Speed of wind, in knots: Unknown

16c. Were the waves:

- | | |
|---|--|
| <input type="radio"/> Calm (<6") | <input type="radio"/> Rough spray (3'-14') |
| <input type="radio"/> Choppy (6"-2') | <input type="radio"/> Gale (14'+) |
| <input type="radio"/> Small whitecaps (2'-3') | <input type="radio"/> Unknown |

17. Select all relevant events that may have increased risk or contributed to the death. Additional medical conditions that may have increased risk or contributed are asked about in the Decedent Investigation Form.

- | | |
|---|---|
| <input type="checkbox"/> None | <input type="checkbox"/> Boat/watercraft involvement, proceed to 17a |
| <input type="checkbox"/> Fell into water | <input type="checkbox"/> Watercraft speed |
| <input type="checkbox"/> Intoxication | <input type="checkbox"/> Dam |
| <input type="checkbox"/> Jumped from height | <input type="checkbox"/> Carbon monoxide poisoning |
| <input type="checkbox"/> Pushed into water | <input type="checkbox"/> Homicide |
| <input type="checkbox"/> Fell through ice | <input type="checkbox"/> Attempting to rescue person, animal, or object |
| <input type="checkbox"/> Suicide | <input type="checkbox"/> Trauma or injury, describe: |
| <input type="checkbox"/> Airplane crash | <input type="checkbox"/> Other, describe: |
| <input type="checkbox"/> Trapped in vehicle | <input type="checkbox"/> Unknown |

17a. Boat or watercraft involvement?

- | | |
|---|--|
| <input type="radio"/> Capsized | <input type="radio"/> Swamped or took on water |
| <input type="radio"/> Fell overboard <i>(not due to other problem listed above)</i> | <input type="radio"/> Crashed |
| <input type="radio"/> Sinking/sunk | <input type="radio"/> Other, describe: |

18. Was there a trained or certified lifeguard present? If no or unknown, skip to 19.

- Yes, proceed to 18a
- Unknown
- No, no lifeguards at hour of incident
- No, no lifeguards for that body of water

18a. If there were lifeguards present, how many lifeguards were supervising that area at the time of the incident?

- Unknown

18b. Was there a rotation system for lifeguards?

- Yes
- No
- Unknown

If yes, describe, including positions (on-deck standing vs. in chair or tower) and time lifeguard(s) had been on duty:

18c. Approximately how many swimmers was this lifeguard in charge of supervising at the time of the incident?

- Unknown

18d. Describe the experience and qualifications of the lifeguard(s) on duty, including training and experience.

19. How did subject access the water?

- Subject placed into water (such as bathtub)
- Permitted access, No supervisor required
- Unpermitted access, Fell or wandered in
- Unpermitted access, Breached a protective barrier
- Unpermitted access, Trespassing, including access after swimming hours
- Permitted access with supervisor accompaniment
- Permitted access but not accompanied by supervisor
- Other, specify:
- Unknown

20. Did any of these barriers or layers of protection exist to prevent access to the water? Check all that apply.

- | | | | | | | |
|---|----------|------------------|-------------------------|-------------------------|-------------------------|--------------------------------|
| <input type="checkbox"/> Fence | ⇒ | Was it breached? | <input type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> U | If yes ⇒ Proceed to 20a |
| <input type="checkbox"/> Gate | ⇒ | Was it breached? | <input type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> U | If yes ⇒ Proceed to 20b |
| <input type="checkbox"/> Door/Window | ⇒ | Was it breached? | <input type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> U | If yes ⇒ Proceed to 20c |
| <input type="checkbox"/> Pool or door alarm | ⇒ | Was it breached? | <input type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> U | If yes ⇒ Proceed to 20d |
| <input type="checkbox"/> Pool cover | ⇒ | Was it breached? | <input type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> U | If yes ⇒ Proceed to 20e |
| <input type="checkbox"/> None | If yes ⇒ | | | | | Proceed to 21 |

20a. **FENCE:** How was the fence breached? Fences around pools should surround all sides and not have any horizontal or vertical gaps. Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> Climbed fence | <input type="checkbox"/> Fence too short |
| <input type="checkbox"/> Gap in fence | <input type="checkbox"/> Other, specify: |
| <input type="checkbox"/> Fence had pre-existing damage | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Fence was damaged expressly to gain access | |

20b. **GATE:** How was the gate breached? Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> Gate left/propped open | <input type="checkbox"/> Gate unlocked |
| <input type="checkbox"/> Gap in gate | <input type="checkbox"/> Other, specify: |
| <input type="checkbox"/> Gate latch failed | <input type="checkbox"/> Unknown |

20c. **DOOR/WINDOW:**How was the door or window breached? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Door/window left/propped open | <input type="checkbox"/> Door unlocked |
| <input type="checkbox"/> Door/window or screen broken | <input type="checkbox"/> Other, specify: |
| <input type="checkbox"/> Door self-close failed | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Doggy door | |

20d. **POOL OR DOOR ALARM:**How was the alarm(s) breached? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Pool alarm not answered | <input type="checkbox"/> Door alarm not answered |
| <input type="checkbox"/> Not working/broken/failed | <input type="checkbox"/> Other, specify: |
| <input type="checkbox"/> Not armed/set at time of incident | <input type="checkbox"/> Unknown |

20e. **POOL COVER:**How was the cover breached? Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Cover not locked | <input type="checkbox"/> Non-rigid cover bypassed |
| <input type="checkbox"/> Cover torn/damaged | <input type="checkbox"/> Other, specify: |
| <input type="checkbox"/> Cover left off | <input type="checkbox"/> Unknown |

21. Was there any other equipment in use relating to safety? Check all that apply

- | | |
|---|---|
| <input type="checkbox"/> None | <input type="checkbox"/> Tracking device on subject |
| <input type="checkbox"/> Ladder | <input type="checkbox"/> Other, describe: |
| <input type="checkbox"/> Water alert bracelet | <input type="checkbox"/> Unknown |

22. Were any warning signs or labels posted? E.g., 'Enter at Own Risk,' 'Thin Ice,' 'Strong Current', beach flags, pool depth, etc.? If no or unknown, skip to 22.

- Yes, proceed to 21a No Unknown

22a. If there were signs or labels, was subject (or their supervisor) able to read and understand the warning or sign?

- Yes No, describe: Unknown

23. Were swimmers required to pass a swim test to access water?

- Yes, access to whole area
- Yes, but only for deep end
- N/A, drowning was not in a typical swimming body of water (*i.e. bathtub, water feature, etc.*)
- No
- Unknown

Describe the test, including if subject passed or failed and who administered it:

24. Was a rescue* attempt made? If not, skip to question 24.

- Yes
- No
- Unknown

*This is only for attempting to pull someone out of the water while they were still alive. Do not include recovery of deceased bodies here.

24a. If attempt was made, by whom? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Family member 18 years or older | <input type="checkbox"/> Other facility staff |
| <input type="checkbox"/> Family member under 18 years | <input type="checkbox"/> EMS/First responder |
| <input type="checkbox"/> Other adult | <input type="checkbox"/> The person who discovered the subject |
| <input type="checkbox"/> Other child | <input type="checkbox"/> Bystander |
| <input type="checkbox"/> Lifeguard | |

24b. Provide rescuer details if available: Same person as listed as witness above

24c. Did anyone attempting to rescue the subject also require assistance or aid? Check all that apply.

- | | | |
|---|---|----------------------------------|
| <input type="checkbox"/> Yes and drowned | <input type="checkbox"/> Yes and survived | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Yes and required hospitalization | | <input type="checkbox"/> No |

25. What rescue equipment was present, and subsequently used, at the scene? Check all that apply.

Present

- None
- Rescue can
- Rescue tube
- Ring buoy
- Life hook/shepard's crook
- Rescue throw rope bag
- Rescue watercraft (*boat, surf/paddleboard, etc.*)
- Other, describe:
- Unknown

Used

- None
- Rescue can
- Rescue tube
- Ring buoy
- Life hook/shepard's crook
- Rescue throw rope bag
- Rescue watercraft (*boat, surf/paddleboard, etc.*)
- Other, describe:
- Unknown

26. What resources were dispatched in response to the incident? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> EMS/Fire/Ambulance | <input type="checkbox"/> Coroner/Medical examiner |
| <input type="checkbox"/> Police/Law enforcement/Investigator | <input type="checkbox"/> State Boating Law Administrator |
| <input type="checkbox"/> Dive team/Marine patrol | <input type="checkbox"/> Other, describe: |

27. Select all resuscitative methods that were used or administered on-scene or in transit from the scene.

- | | |
|---|---|
| <input type="checkbox"/> Rescue breaths | <input type="checkbox"/> First aid |
| <input type="checkbox"/> Chest compressions | <input type="checkbox"/> Rescue medications, including Naloxone |
| <input type="checkbox"/> Automated external defibrillator (AED) | <input type="checkbox"/> Supplemental oxygen/Bag-valve-mask |
| <input type="checkbox"/> None of the above, skip to 28 | <input type="checkbox"/> Other, describe: |
| | <input type="checkbox"/> Unknown |

27a. If any of the above methods were used, who applied them? What was their training/certifications, and were certifications currently active? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> The person who found the subject: | <input type="checkbox"/> Other facility staff: |
| <input type="checkbox"/> Bystander: | <input type="checkbox"/> Police/Law enforcement: |
| <input type="checkbox"/> Family member: | <input type="checkbox"/> EMS/Fire: |
| <input type="checkbox"/> Lifeguard: | <input type="checkbox"/> Diver or dive team: |

27b. What was the approximate duration of resuscitation?

28. When found, was the subject (check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> Deceased | <input type="checkbox"/> Transported to the hospital |
| <input type="checkbox"/> Treated in the field | <input type="checkbox"/> Admitted to the hospital |

29. How deep was the water in feet?

- | | | | | | | | |
|----------------------------------|---------------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Where subject was last seen? | <input type="radio"/> N/A | <input type="radio"/> <6" | <input type="radio"/> 6-11" | <input type="radio"/> 1-2 ft. | <input type="radio"/> 2-6 ft. | <input type="radio"/> >6 ft. | <input type="radio"/> Unknown |
| Minimum depth of incident water? | <input type="radio"/> <6" | <input type="radio"/> 6-11" | <input type="radio"/> 1-2 ft. | <input type="radio"/> 2-6 ft. | <input type="radio"/> >6 ft. | <input type="radio"/> Unknown | |
| Maximum depth of incident water? | <input type="radio"/> <6" | <input type="radio"/> 6-11" | <input type="radio"/> 1-2 ft. | <input type="radio"/> 2-6 ft. | <input type="radio"/> >6 ft. | <input type="radio"/> Unknown | |
| Where incident occurred? | <input type="radio"/> <6" | <input type="radio"/> 6-11" | <input type="radio"/> 1-2 ft. | <input type="radio"/> 2-6 ft. | <input type="radio"/> >6 ft. | <input type="radio"/> Unknown | |
| Where subject was recovered? | <input type="radio"/> <6" | <input type="radio"/> 6-11" | <input type="radio"/> 1-2 ft. | <input type="radio"/> 2-6 ft. | <input type="radio"/> >6 ft. | <input type="radio"/> Unknown | |

29a. How were depths measured?

30. This question will determine some of the next questions asked. Where did the subject drown?

- | | | |
|---|---|--|
| <input type="checkbox"/> In contained water available to the public, customers, or patrons, such as pool, hot tub/spa, water park, etc. | ⇒ | Proceed to Public Pool on page 13. |
| <input type="checkbox"/> In contained water at a private residence, such as a pool, hot tub, bathtub, or water container. This includes private vacation rentals, apartments, mobile home parks, or a hotel/motel if it was the current residence of the subject. | ⇒ | Skip to Private Residence on page 14. |
| <input type="checkbox"/> In natural/open water, including open water on public or residential property such as a pond or other water access point; drainage ditch, canal, lake, or river. This includes falling through ice. | ⇒ | Skip to Open Water on page 16. |

OPEN WATER

1. In what type of water did the incident occur?

- Lake Ocean Irrigation canal/ditch/retention pond
 Estuary/bay Ice road Gravel pit/quarry
 Reservoir Bayou Other, specify:
 Natural/constructed pond River Unknown

2. What was the approximate distance subject was found from shore?

3. Did the incident occur at a park? Yes, proceed to question 3a No Unknown

3a. What kind of park?

- National park City/county/neighborhood park Unknown
 State park Other park, describe:

4. Was there a designated swimming area? If not, skip to question 5.

Yes, proceed to question 4a No Unknown

4a. Did drowning occur in the designated area? If no or unknown, skip to question 5.

Yes, proceed to question 4b No Unknown

4b. How was the swimming area designated? Check all that apply.

- Ropes Buoys Lifeguard stations
 Rescue equipment Other, describe:

4c. What size is the swim area?

by _____ feet/yards/meters Unknown

4d. What is the maximum swimmer capacity of the area?

Unknown, proceed to question 4f

4e. If capacity was known, at the time of drowning was the area:

Over capacity At or near capacity Under capacity Unknown

4f. Was there a diving platform or other structure? If no or unknown, skip to question 5.

Yes No Unknown

4g. If there was a diving platform or structure, was subject seen playing on or around it?

Yes No Unknown

5. Was subject engaging in transportation or a recreational activity in or on a vessel, watercraft, or snowmobile at the time of the incident? If no or unknown, skip to question 6.

- Yes No, skip to question 6 Unknown, skip to question 6

5a. If yes, what type of vessel?

- | | | |
|--|-----------------------------------|---------------------------------------|
| <input type="radio"/> Motorboat, commercial (<i>includes transportation</i>) | <input type="radio"/> Sailboat | <input type="radio"/> Jet ski |
| <input type="radio"/> Motorboat, personal | <input type="radio"/> Paddleboard | <input type="radio"/> Kayak |
| <input type="radio"/> Kiteboard/wind surfing | <input type="radio"/> Pedal boat | <input type="radio"/> Snowmobile |
| <input type="radio"/> Innertube | <input type="radio"/> Canoe | <input type="radio"/> Other, specify: |
| <input type="radio"/> Inflatable raft | <input type="radio"/> Row boat | <input type="radio"/> Unknown |

5b. What was the length of the vessel?

5c. Was subject operating the vessel?

- Yes No Unknown

5d. Had boat operator completed mandatory boater education?

- Yes No Not required for location or circumstances Unknown

5d. Did the vessel have all legally required safety equipment?

- Yes, describe: No Unknown

6. On shore, was there any of the following water safety equipment?

- | | |
|---|--|
| <input type="checkbox"/> None | <input type="checkbox"/> Life jacket loaner board, stocked |
| <input type="checkbox"/> Lifeguard station, staffed | <input type="checkbox"/> Life jacket loaner board, no proper sizes |
| <input type="checkbox"/> Lifeguard station, closed or unstaffed | <input type="checkbox"/> Life jacket loaner board, empty |
| <input type="checkbox"/> Life rings | <input type="checkbox"/> Other, specify: |

Proceed to Decedent Information Form on page 18.